

An aerial photograph showing a paved road that curves from the bottom center towards the top center. To the left of the road is a dry, brownish-yellow field with sparse, thin trees. To the right is a dense, lush green forest. The background shows a hazy horizon with some distant structures.

FINANCIAL CRIMES AND LAND CONVERSION: UNCOVERING RISK FOR FINANCIAL INSTITUTIONS

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ACKNOWLEDGMENTS

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This report is an introduction to an Environmental Crimes Financial Toolkit being developed by WWF and Themis, as part of the **Climate Solutions Partnership**¹, a collaboration between HSBC, the World Resources Institute and WWF.

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Executive Summary

According to [Global Canopy](#), USD 6.1 trillion in funding was provided to the 350 companies with the greatest risk exposure to tropical deforestation by some 150 financial institutions in 2023. In light of this, WWF and Themis have partnered to create a series of practical resources for financial institutions to manage their exposure to deforestation, including this introductory report which will form part of a wider Environmental Crimes Financial Toolkit.

Deforestation has a range of devastating environmental and social impacts and poses a serious threat to global efforts to tackle climate change. It is perhaps the most widely discussed form of land conversion - a term which covers land use change across a range of different ecosystems and biomes, not merely forested areas, and which should therefore be considered as part of a widened scope beyond just deforestation. Indeed, although focus in recent years has tended towards preventative measures to curb deforestation in the Amazon, for example, important biomes, such as the Brazilian Cerrado and [Gran Chaco](#) (spanning Argentina, Brazil, Bolivia, and Paraguay), which comprise savannah, wetland, and dry forest, have suffered vast destruction and degradation from land conversion, with far less attention.





Financial institutions can be exposed to land conversion activity through investment, capital provision, and financing of trade in hard and soft commodities, especially cattle, soy, palm oil, timber, cocoa, coffee, rubber, minerals, oil, and gas. What's more, with upcoming legislation and regulation in the UK, EU, US and other jurisdictions across the world increasingly geared towards tackling deforestation from a funding perspective, financial institutions are facing greater regulatory risk than ever.

Given substantial environmental, social and governance (ESG)-related concerns, many firms are already risk assessing and attempting to limit their exposure to land conversion related activity. However, in addition, land conversion frequently converges with an array of financial crimes - regardless of whether it is in and of itself legal - including bribery and corruption, money laundering, tax evasion, and fraud, as well as other predicate crimes to money laundering, including trafficking in humans, drugs, wildlife, and other natural resources. In doing so, it feeds into a pernicious web of global crime, often organised in nature, destabilising the rule of law and depriving governments of tax revenue the world over - and representing a significant financial crime risk to firms.

These financial and predicate crimes can actively drive and enable or simply converge with land conversion.

For example:



Ranches, plantations, and mines established on cleared land to launder illicit proceeds from serious organised criminal activity and drugs trafficking. Land can also be cleared to make way for drugs cultivation, as well as the infrastructure necessary to transport drugs through undeveloped areas.



Fraudulent alteration or falsification of documentation, including mis-invoicing, permit trading, trade-database hacking, or fraudulent bills of lading, employed to conceal or misrepresent activity.



Timber companies acting as front operations for the smuggling of other goods, like products of the illegal wildlife trade, which have been found transported in hollowed out logs and timber shipments.



Corruption and bribery used to secure permits for land clearing that should not legally have been issued.



Financial flows from high secrecy tax havens funding land conversion activities.



Forced and child labour utilised to undertake dangerous land clearing activities.



Front companies used to evade taxes on land clearing activities.





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The convergence with this vast array of financial crimes indicates that firms should look beyond mere definitions of licit and illicit land conversion – which are, in any case, hard to demarcate, with much activity taking place in the grey area between the two – since the threat of convergence with other serious crimes is substantial, regardless. Indeed, given this extensive overlap, the presence of land conversion might in and of itself be treated by firms as a red flag and key indicator for other serious financial and predicate crimes.

As part of this project, WWF and Themis surveyed 644 financial services professionals from across 17 countries to gauge their understanding of and attitudes towards the issue of land conversion and related financial crime. This survey was complemented by desk-based research, interviews with subject matter experts, and focus groups with practitioners to better understand financial institutions' exposure to land conversion-linked financial crimes.

Data from the survey highlighted gaps in institutional knowledge across the industry, as well as key vulnerabilities in the global financial system when it comes to handling the proceeds of land conversion-related financial crimes. Notably, **almost half of financial institutions sampled reported operating with or in high-risk sectors or areas, yet over a quarter said they did not undertake specific related due diligence.**

Furthermore, relatively few respondents stated that they monitor or screen companies on a periodic or ongoing basis rather than just in the early stages of a relationship. This indicates a vulnerability across the sector, especially a risk exposure to actors that only initiate illicit activity once they have been onboarded by a bank. This is even more concerning given **between a fifth and a third of survey respondents also stated that their firms had borne witness to third parties attempting to hide financial crime or unethical business practices linked to land conversion.**

The knowledge and procedural gaps identified by the survey – when combined with data on the amount of global funding provided to deforestation-risk companies by financial institutions – give cause for concern and indicate an urgent need to help firms address land conversion from a financial crime perspective, as well as an ESG one.

Indeed, participants in our research flagged land-conversion-specific training and resources targeted towards financial institutions as necessary to help firms overcome recognised obstacles, including insufficient internal prioritisation, institutional will, and funding. Additionally – and encouragingly – nearly **half of respondents indicated a willingness to end business relationships on the strength of concerns around land conversion-linked financial crime**. This suggests that delineating and emphasising the risk of exposure to financial crime through land conversion activity may be a key driver in ultimately reducing the financing of this harmful activity, helping firms to apportion risk and corresponding resources.

To address this need, this report serves as an introduction to a wider Environmental Crimes Financial Toolkit, the first stage of which we will be launching later this year. The impact of environmental crime is clear from an economic as well as an environmental perspective. According to analysis by [RHIPTO](#), [INTERPOL](#), and the [Global Initiative Against Transnational Organized Crime in 2018](#), environmental crime is estimated to generate between USD 110 and 281 billion annually. As far back as 2016, [INTERPOL](#) and the [United Nations Environment Programme](#) assessed that the cost impact was rising by 5% to 7% annually – two to three times the rate of the global economy – making environmental crime the fourth largest criminal activity in the world behind drug trafficking, human trafficking and counterfeiting.

This initial iteration of the toolkit will equip firms with the means to better detect and monitor illicit activity related to land conversion, and will encompass typologies, red flag indicators, governance, and risk assessment. It is intended to be a highly practical digital resource that firms can incorporate into their existing controls, helping them to mitigate their own risk exposure to the illicit financial flows associated with land conversion, and therefore ultimately reduce the financing and impact of this devastatingly harmful activity across the world. This will ultimately form part of the wider Environmental Crimes Financial Toolkit which will broaden the focus to include other environmental crimes beyond just land conversion.



1

INTRODUCTION

Land conversion – of which deforestation is perhaps the most widely understood form - poses a serious threat to global ecosystems and the world's ability to fight climate change. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) estimates that degradation of the Earth's land surface through human activities is currently negatively impacting the well-being of at least 3.2 billion people, pushing the planet towards a sixth mass species extinction, and costing over 10% of the annual global gross product in loss of biodiversity and ecosystem services.

Land conversion has a devastating effect at a local and a global scale but also frequently converges with an array of financial crimes, regardless of whether it is in and of itself legal, including bribery and corruption, money laundering, tax evasion, and fraud, as well as other predicate crimes to money laundering, including trafficking in humans, drugs, wildlife, and other natural resources. As such, it feeds into a pernicious web of global crime – often organised in nature - destabilising the rule of law and depriving governments of tax revenue the world over. Indeed, even as far back as 2016, the United Nations (UN) Environment Programme and INTERPOL noted that 84% of countries saw a convergence between environmental crime (which encompasses illegal land conversion) and other serious crimes. This poses a grave threat not only to local ecosystems but also to the global financial system, which criminals exploit to launder the proceeds of these crimes.

The private sector has an important role to play alongside law enforcement and Financial Intelligence Units (FIUs) in helping to investigate the illicit financial flows behind land conversion – not to mention a regulatory obligation. Financial institutions are the gatekeepers of a wealth of unique data, including transactional intelligence and client profiles, which has the potential to be much better harnessed in addressing financial crimes linked to land conversion. If firms can understand more about this convergence and be encouraged to flag related suspicious transactions accordingly, then relevant law enforcement agencies can gain advantage over the criminals exploiting the financial system, and firms can protect themselves from the various physical, legal, and reputational and risks of being linked to land conversion.



Since the UN General Assembly adopted its first resolution recognising environmental crime as part of other transnational organised crimes in 2017, international bodies have given the issue their increasing attention. Environmental crime is listed as one of the Financial Action Task Force's (FATF) key areas of focus, as well as for EUROPOL and INTERPOL - both of which have led numerous successful operations tackling environmental crimes since around 2015. A slew of recent and upcoming legislation, including the European Union Deforestation Regulation (EUDR) and an amendment to the UK Financial Services and Markets Bill, indicates that land conversion is moving up government agendas, and that the financial sector is falling under increasing scrutiny when it comes to this important issue.

This report is the first stage in a project undertaken collaboratively by WWF-UK and Themis which will result in a digital toolkit, intended, initially, to help financial institutions to identify and mitigate their exposure to land conversion-related financial crime risk and, later, other and wider environmental crime risk, and support them in addressing associated illicit financial flows. The toolkit will build on the success of the Illegal Wildlife Trade Toolkit developed by the UK Government's Serious and Organised Crime Network in collaboration with Themis, WWF and TRAFFIC and - given the positive feedback received from financial institutions globally - be structured along the same lines.

This report is intended to provide context and an introduction to the first stage of the toolkit and the themes and focus areas it will cover; it is not intended to be an exhaustive resource in and of itself, as many of the report's themes will be covered in more detail in the toolkit. It draws on desk-based research, interviews with subject matter specialists and experts, and consultations and focus groups with financial institutions and environmental and financial crime professionals. It also draws on data analysis from an extensive survey launched specifically for this project and responded to by 644 professionals working in financial institutions across 17 countries. This survey sought insight on the latest trends, red flags, and financial crime typologies seen in relation to land conversion, as well as finance professionals' attitudes towards the issue.

The toolkit developed through this research will be available to all, as a freely accessible webpage.



2

THE ISSUE: LAND CONVERSION

2.1 Definitions

Land conversion refers to a substantial and sustained change of a natural ecosystem (including via the introduction of different land management practices) to another land use or a profound change in its species composition, structure or function. The definition encompasses all sorts of ecosystems, for example: forest, grassland, marshland, peatland, mangrove swamps, and savannah.

Deforestation is a specific type of land conversion and one that has, perhaps, hitherto attracted the most global attention: the conversion of natural forest to agricultural or other non-forest land use or to a tree plantation; or severe and sustained degradation of natural forest (for example, through the felling of trees for timber).*

Degradation refers to changes within a natural ecosystem that significantly and negatively affect its species composition, structure and/or function, thereby reducing its capacity to support biodiversity, supply products and/or deliver other services. Degradation becomes conversion if it:

- is large-scale and progressive or enduring;
- alters ecosystem composition, structure, and function to the extent that regeneration to a previous state is unlikely; or
- leads to a change in land use (e.g., to agriculture or other use that is not a natural forest or other natural ecosystem).



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*Although this is a widely recognised definition of deforestation, not all countries and institutions embrace it. For instance, according to the Indonesian Ministry of Environment and Forestry definition, deforestation is a conversion from forest cover to non-forest cover, and therefore tree plantation is not considered as a deforestation driver.

Land conversion can occur legally or illegally (although much takes place in the grey area in between the two):



Legal - Land clearing activity that has been approved officially and legitimately (according to proper process and legislation) by the relevant authorities, that does not encroach into protected areas of land and is undertaken to the letter of the permit or license granted. Legal land conversion activity may still converge with other predicate crimes; for example, the evasion of taxes on the deforesting company's profits or the bribery of officials to exert force or power over protesting local communities. Even though certain types of land conversion are legal in many countries, in most cases they are nevertheless incompatible with voluntary commitments like the Roundtable on Sustainable Palm Oil (RSPO) and No Deforestation, No Peat, No Exploitation (NDPE). Under such initiatives or related policies, for example, banks may pledge not to lend to companies that are not certified under these schemes or signed up to these commitments. Thanks to advancements like drone footage and TRASE Finance, public monitoring capacity of these commitments is rapidly improving.



Illegal – Land clearing activity that is in contravention of applicable legislation, schemes, or regulation (e.g., into or on protected land) or by an entity that does not have the legal right (e.g., when entities operate without a permit or license, or amend or obtain one through fraudulent or corrupt means, or where 'excess' land conversion takes place beyond the borders or parameters or the area or approved activity). Under these classifications, up to 70% of deforestation in the Amazon is thought to take place illegally.

IN FOCUS : LEGAL GREY AREAS

It can be extremely difficult to demarcate between legal and illegal land conversion given:

- **Jurisdictional variation in legislation and regulation** governing land conversion, meaning that what one country or region constitutes as unlawful, another may not.
- **Ambiguity and grey areas in national legislation and regulation** over how illegality is defined or interpreted (for example, if a permit entitles land clearing activity but is obtained through corrupt means, whether that automatically also confers illegality on the land conversion activity or whether the corruption is simply a discrete illegal act in and of itself).
- **A lack of consensus on key underlying definitions:** for example, there are currently over 800 definitions of the term “forest” in use worldwide: without a global agreement on what constitutes a forest, it is all but impossible to settle on a single definition of exactly what it means to “deforest” (what scale or proportion of trees must be lost, for example), leaving ample room for actors to circumvent rules around deforestation and land conversion.
- **A lack of clarity over land tenure** in many high-risk conversion regions, particularly in relation to Indigenous land rights. Indigenous territories that are legally recognised are known to protect the forest and provide a barrier to deforestation – and conversion activity that takes place on them is recognised and treated as unlawful. Whether or not countries officially recognise Indigenous Peoples and local communities in their constitutions and/or are voluntary signatories to conventions (like the Indigenous and Tribal Peoples Convention signed by Amazon nations), weak administrative systems and/or a relative lack of strength of legal protection for these populations have often made land tenure systems chaotic and insecure, meaning that conversion activity that encroaches into such territories may not be clearly designated as illicit. In Peru, for example, legal recognition of territorial rights for the Unipacuyacu community can take up to 30 years, which leads to increased incidence of conflict, abuse, disputes, and conversion associated with land-grabbing.
- **The transparency of relevant data.** For example, Brazil’s Forest Code, passed in 1965, defines the amount of deforestation and land conversion that can occur on a rural private property (20–80% must be maintained under native vegetation, depending on which state landowners reside in). It also mandates that landowners obtain a deforestation licence from the state environmental agency; any deforestation occurring without a licence is illegal. However, the inadequacy of publicly available and comparable licence information in several Brazilian states makes it difficult to determine the legality of regional deforestation. Some research shows that 94% of a studied area deforested across the Amazon and Cerrado biomes either has no publicly available or inaccurate (e.g., expired) associated deforestation permit data, and should therefore be considered illegal.



Action for financial institutions: Look beyond definitions of legality and illegality given reputational risk of conversion more widely and possible convergence with other illicit activities.

2.2 Land Conversion: More Than Just Deforestation

In 2022, global deforestation reached 6.6 million hectares – 96% of which took place in tropical regions. This is an urgent concern given the social and environmental impacts that land conversion has globally, and the particular impact of deforestation on climate change.

It is worth noting that much emphasis to date has been on deforestation specifically, yet other forms of land conversion also account for a vast amount of damage to all sorts of ecosystems around the world, not just forested areas. Just 20% of the original native vegetation in the Brazilian Cerrado - a tropical and subtropical savannah that covers over 20% of the country, acting as one of the world's most important and biodiverse biomes - remains intact, for example, predominantly due to aggressive soy production.

Gaps in legislation and regulation have hitherto afforded less protection to other important ecosystems beyond forests, like grasslands and wetlands. This puts at risk important South American biomes which fall under these other categories, such as the Brazilian Cerrado and Gran Chaco (the continent's second largest forested ecosystem after the Amazon, and a diverse landscape comprising savannah, wetland, and dry forest which spans areas of Argentina, Brazil, Bolivia, and Paraguay).



IN FOCUS: INCREASED LAND CONVERSION IN THE BRAZILIAN CERRADO: KEY CHALLENGES

In the first six months of 2023 alone, the Cerrado experienced a 21% increase in land clearing and conversion for agricultural use.

Some attribute the challenges in protecting the Cerrado to political pressure from powerful agribusiness lobbyists in Brazil and a lack of recognition of Indigenous Peoples and local communities and their land rights in the biome (these groups have been officially recognised as the best “guardians of the world’s forests”). Under 3% of the Cerrado biome is legally protected compared to 46% of the Amazon, with just 5-7% recognised as Indigenous territory (compared to around 25% of the Amazon). This may be compounded by a relative lack of public and international knowledge of the Cerrado – and therefore pressure for its protection – compared to the Amazon.

Regional variation in land use regulations play their part, too. The law requires that 80% of private land in the Amazon be preserved, yet in the Cerrado, with the correct environmental licensing, private landowners are legally permitted to clear up to 80% of native vegetation on their land. Interestingly, even given this significant allowance for legal vegetation clearing, a report from the Life Center Institute still found that 88% of the deforestation in the Cerrado in 2019 was illegal.

There is also a relative lack of legal instrument for the Cerrado in comparison with the Amazon, which has had an Action Plan for the Prevention and Control of Deforestation (PPCDAm) since 2004 (although this was suspended during the Bolsonaro administration). There is a corresponding proposed Action Plan for Deforestation Prevention and Control of Deforestation and Burning in the Cerrados - PPCerrado - being implemented for the Cerrado, however, at the time of writing, this is overdue and exact details have yet to be disclosed. Nevertheless, experts believe it unlikely that there will be much change to the existing legal deforestation allowance of up to 80%.



Action for financial institutions: *Expand policy definitions and indicators to cover a wider range of biomes beyond just forest.*

2.3 Drivers of Land Conversion

Land conversion is driven by a whole spectrum of factors, including:



Consumption Trends

- Growing global demand for animal products: rising incomes shift demand for food items like meat, and food for cattle and poultry (e.g., soy) needed to support demand for meat and derived products or byproducts (e.g., collagen supplements), leading to the expansion of inefficient cattle-ranching systems and agricultural frontiers. Similar increase in demand for plant-based foods (e.g., soy) as consumers become more health and environmentally conscious.
- Increased global demand for non-seasonal and non-local foods (e.g., avocados).



Market Dynamics

- Falling global prices for soft commodities (e.g., coffee), putting pressure on farmers to produce greater quantities to sustain their incomes.
- Growing demand for timber to produce products like biomass and paper (it is estimated that global wood consumption could grow by 54% between 2010 and 2050).
- Rising prices of gold and growing global demand for transition minerals (predicted to increase by almost 500% by 2040), driving legal and illegal mining activity.



Technological and Urban Advancement

- Technological improvements in agricultural equipment and machinery, increasing ease and efficiency of land clearing. In addition, increased scale of human-made fires to clear land, changing the frequency and seasonal timing of fires as well as introducing them to ecosystems where they do not naturally occur.
- Increasing urbanisation and infrastructure development encroaching into forested areas.



Crime and Illegality

- Land-grabbing by individuals, companies, and governments, where natural vegetation is then cleared to make way for homes or the production of agricultural commodities.
- Increasing involvement and collaboration of organised crime groups operating in forested regions.
- Crackdown on drug trafficking in certain areas incentivising criminals to diversify into less 'risky' commodities, like timber and gold.



The Legislative Landscape

- Lower penalties for environmental crime than for money laundering and other financial crime in many regions, incentivising criminals to pursue forestry crime as a 'low risk-high reward' option.
- Gaps in legal frameworks and in the implementation of laws protecting the rights of Indigenous Peoples and local communities (particularly their rights to land, territories and resources).



Conflict and Political/Financial Instability

- Conflict is often financed by resource extraction including of oil, minerals, wildlife, timber, and cultural artefacts (all of which may require land clearing).
- In times of violence and upheaval, environmental crime protection and conservation efforts may be hampered due to security issues.
- In times of financial uncertainty (whether related to conflict or not), civilians and marginalised groups may turn to natural resources to support themselves (e.g., burning wood to heat their homes when infrastructure is disrupted).

2.4 Impacts of land conversion

Ecosystem services refer to the direct and indirect flow of benefits on human wellbeing and quality of life that come from natural capital (or ecosystems). The term covers both practical resources, like food, water, medicine, carbon capture, and climate regulation, as well as cultural facets like capacity for reducing anxiety and stress. For example, 70% of the world's poor are directly dependent on wild species, an estimated 4 billion people rely primarily on natural medicines for their health care, and 70% of drugs used in cancer treatment are either natural in origin or synthetic products inspired by nature.

Land conversion significantly impacts on ecosystem service provision in numerous ways, robbing people of the many health, economic, and social benefits that natural biomes provide.

Land conversion is driven by a whole spectrum of factors, including:



Ecosystem Services Provision

- A negative impact on biodiversity loss and wildlife extinction as natural habitats are destroyed, especially since forest ecosystems hold 80% of terrestrial biodiversity (69% of the world's wildlife has been lost since 1970 - the majority from land conversion hotspots).
- Irrevocable destruction of the state of the soil in some land-cleared areas as invading species colonise and prevent endemic plants from growing – as such, agricultural production may be hampered and subsequently abandoned. Often-quoted figures suggest that 80% of agricultural land and 10-20% of rangelands suffer from severe erosion.



Climate

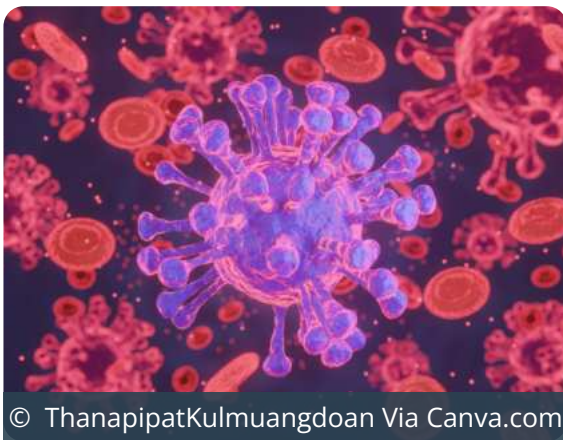
- Serious undermining of efforts to fight climate change, since it is estimated that land use change is responsible for as much as 12-20% of global carbon emissions. Indeed, areas of the Amazon now emit more carbon than they absorb, largely due to the fires which are frequently used to clear land for agriculture. As highlighted by the latest UN Intergovernmental Panel on Climate Change (IPCC) report, one of the most important mitigation options to fight climate change is to reduce the conversion of existing natural ecosystems.
- An increase in the global incidence and impact of extreme weather events and natural disasters, leading to greater numbers of displaced individuals and communities and economic and operational instability/supply chain disruption. IPBES estimates that land degradation and climate change are likely to force 50 to 700 million people to migrate by 2050.



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Crime and Illegality

- Supports serious transnational organised criminal activity, exacerbating national and regional corruption schemes and money laundering.
- Drives up local crime rates, with fewer resources increasing local poverty levels and forcing people to turn to crime to sustain themselves.



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Human Health

- Increases the risk of outbreak of zoonotic diseases, since land-clearing pushes wildlife outside their former habitat, increasing interactions between humans, wildlife, and domestic animals and therefore the mergence and emergence of novel pathogens.



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Human Rights Violations

- Leads to an increase in child labour, which is often utilised in commodity-producing sectors that drive land conversion like mining (where children can be sent into smaller spaces than adults) and on cocoa farms (e.g., in Ghana's remote cocoa belt, where children as young as five have been found working on farms and wielding machetes to harvest beans that are used in the supply chain of global household brand names).
- Accounts for numerous human rights violations through illegal land grabbing and violence against Indigenous Peoples and local communities in forest areas.
- Is the primary cause for the killing of environmental human rights defenders across the world (in 2023, this number equated to a rate of one murder every other day), who are frequently targeted by corrupt actors and criminal groups for defending theirs and others' property, land, and resources.



Social and Cultural Disruption for Indigenous Peoples and Local Communities

- Affects incidence of alcohol abuse, which has been shown to increase in many regions affected by deforestation, such as the Sava region in Madagascar and amongst Indigenous communities in Paraguay and Colombia.
- Threatens the cultural identity and existence of Indigenous Peoples and local communities, particularly groups for whom the sustainable use of natural resources and land is a condition of their cultural, social, religious, ancestral, and economic existence.



Injury and Death

- Increases the number of accidental deaths and injuries (e.g., from agricultural machinery and mining accidents (like landslides) associated with the commodity production that drives land-clearing and from infrastructure linked to land-grabbing (like electric fences erected by new landowners which are known to have killed and disabled locals as they attempt to access formerly public land on which their livelihood and cultural identity depends)).



Gendered Effects

Land conversion often has a disproportionately negative impact on women through:

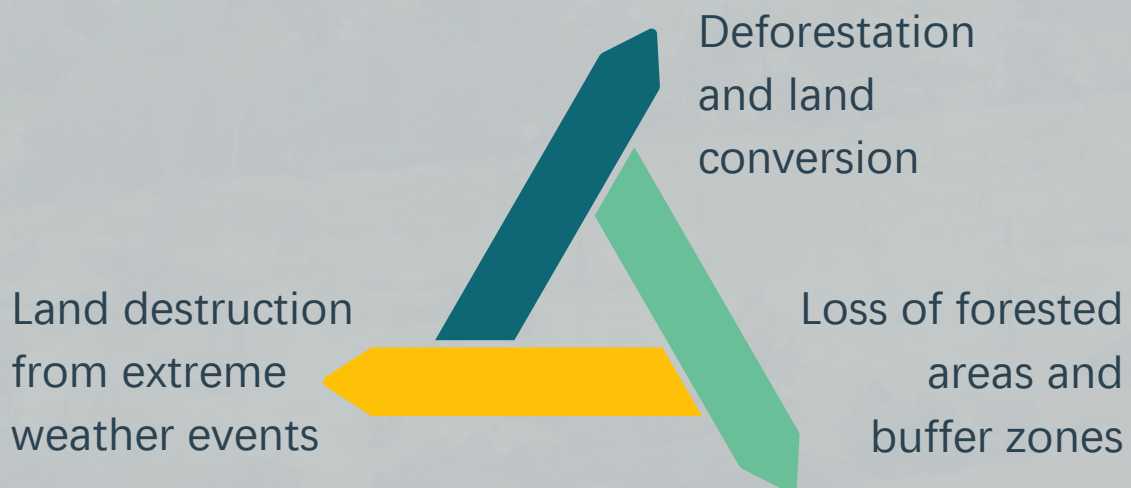
- Farmers and male agribusiness workers committing physical and sexual violence against female labourers and local women and girls, for example when fetching water or going to school on roads that travel through plantations.
- An increase in the incidence of sexual exploitation (e.g., as has been witnessed in Africa's illegal logging and charcoal industry and Peru's illegal mining sector, where sex trafficking takes place in mining camps, affecting girls as young as 12).
- Resultant environmental degradation, which increases competition over scarce resources and exacerbates gender-based violence as a means of reinforcing control over these resources.
- Climate change, which land conversion contributes to and which further deepens existing gender inequality (a rise in rates of intimate partner violence and child marriage have been observed following environmental disasters, for example).

CASE STUDY: TIMBER PRODUCTION, CHARCOAL, AND CYCLONES IN MOZAMBIQUE

The removal of forested areas, which act as buffer zones against extreme weather events, directly cause and exacerbate damage wrought on communities by natural disasters (for example, deforestation can directly lead to landslides following heavy rain), driving displacement and destabilising local and global supply chains.

In 2019, Cyclone Idai hit Mozambique, killing over 600 people. The destruction in the region – caused by flooding and landslides – was amplified by deforestation: fluctuations in air pressure between the land and the sea can increase wind speeds without the resistance offered by trees and, while healthy forests hamper the speed of water, enabling the majority to be absorbed into the soil, damaged ecosystems conversely heighten flood risk.

Since 1980, 10-15% of the country's forests have been destroyed by agricultural practices, illegal logging, and charcoal production – equating to an area larger than the size of Germany. The cyclone has fed into a reinforcing cycle of deforestation in the region: with so many crops destroyed, farmers turned instead to charcoal production – which necessitates deforestation – to sustain themselves. The destruction of infrastructure and supply chains even raised the price of charcoal, creating greater incentive for farmers to undertake further deforestation, which in turn leaves them even more vulnerable to future natural disasters.



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3

FINANCIAL INSTITUTIONS' EXPOSURE TO LAND CONVERSION

According to [Global Canopy](#), the 150 financial institutions that are included in the [Forest 500](#) – a project which annually assesses the human rights and deforestation commitments of the 500 institutions with the greatest exposure to tropical deforestation risk – provide USD 6.1 trillion in financing to the 350 companies that have the greatest risk exposure to tropical deforestation. While the risks faced by financial institutions, as outlined below, represent a significant threat, there is also an important opportunity for firms to leverage change within these companies' supply chains, as regards land conversion risk.

3.1 What are the risks faced by financial institutions?

Land conversion present numerous supply chain risks to firms, namely:

Physical Risk:



Most businesses and commercial services financed by banks depend on natural capital/resources - or ecosystem services - either directly or through their supply chains. Aggressive consumption of local resources reduces their availability in the long-term, undermining sustainable development and creating economic instability. Indeed, the [World Economic Forum](#) estimates that at least 50% of global GDP is reliant on nature and warns that global trade will be significantly destabilised by the impacts of climate change. The three largest sectors that are highly dependent on nature (construction, agriculture, and food and beverages) generate almost USD 8 trillion of gross value added (GVA) per year - a sum that is nearly double the size of the German economy. Loss of natural resources can therefore decrease the productivity and resilience of businesses that depend on these ecosystems, impacting on the financial institutions supporting them – for example, leaving banks with non-performing loans and stranded assets, and losses across global supply chains stretching from farmer to fork.

Legal Risk:



Increasing regulatory and legislative pressure on companies and financial institutions to prevent deforestation presents a risk of non-compliance, especially if firms are unprepared for such changes, which in turn can lead to financial penalties or criminal convictions in markets where they operate.



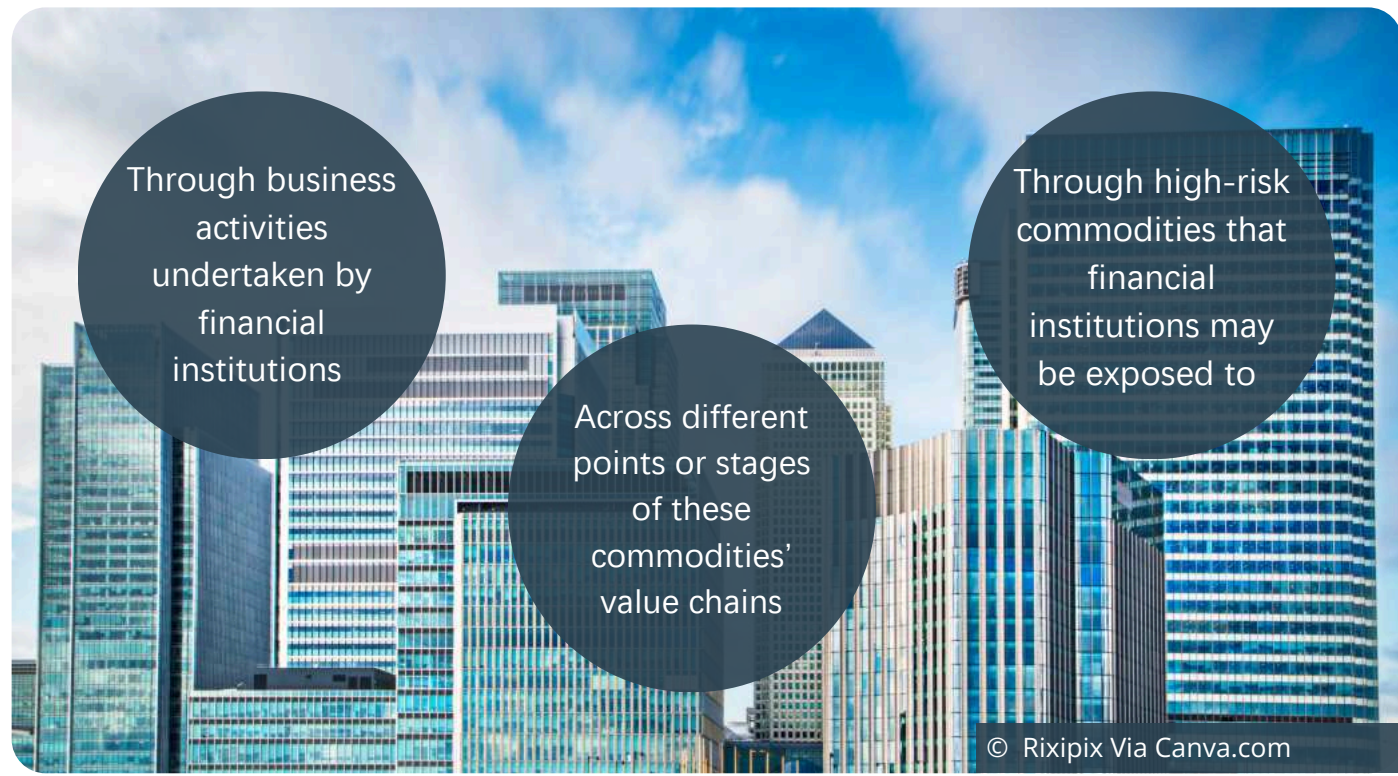
The substantial environmental, social and governance (ESG) impacts of land conversion pose a risk to firms of adverse media and a resulting potential decrease in customer demand and share value loss if it is revealed that they are directly or indirectly financing land conversion - exacerbated if they are linked to any human rights abuses in this context. As emerging economies become increasingly aware of environmental issues and customers vote with their feet, smaller national banks in these jurisdictions run the risk of customer loss as much as larger international ones, if they are seen as net or regional contributors to climate change and environmental degradation in their own country.



In addition, although, as noted, 84% of countries note a convergence between environmental crime (which encompasses illegal deforestation) and other serious crimes, the predicate crime and money laundering risk posed by legal land conversion is also substantial (as outlined in Chapter 4).

3.2 How do these risks materialise?

The risks to financial institutions from exposure to land conversion can predominantly materialise:



3.2.1 Business activity risk

Financial institutions can be exposed to land conversion-related risk directly or indirectly:



Direct exposure - Through their financing (e.g., debt or equity) of – or provision of financial services to – companies that are highly exposed to land conversion risk.



Indirect exposure - Through investment chains like equity investments in banks that lend - or investment in funds with shareholdings exposed – to entities with land conversion risk.

Some of the most exposed financial services include:

Trade finance: Although some trade in commodities is self-financed, a substantial proportion involves trade finance from financial institutions, leaving banks exposed to the land conversion risks associated with these traded commodities. Trade finance involves banks acting as third-party intermediaries to take on the risk involved with the payment and supply of goods between two other parties; for example, by providing an exporter with receivables or payment or extending credit to an importer to fulfil the trade order. It is commonly used to undertake the movement of commodities that drive land conversion, like beef and soy, and so exposes firms to these risks and activities. A key risk for banks financing the transportation of forest risk commodities is the continued reliance on paper documentation, such as bills of lading – essential legal documents issued by carriers to shippers detailing the quantity, type, and destination of the goods in transit – which are sometimes hand-written and susceptible to alterations which may serve to obscure the land conversion risk of the commodity in question (for example, by changing the area of origin).

Commercial bank lending: Commercial banking risk presents itself predominantly through the provision of fixed and working capital loans or lines of credit to companies exposed to land conversion risk.

Investment banking: Investment banking risk stems from banking clients that may be directly or indirectly exposed to land conversion. Data indicates that USD 128 billion was extended in the credit and underwriting of deforestation-linked commodity projects between 2016 and 2020. Investment banks could be exposed to reputational risk for having undertaken insufficient due diligence on the activities and potential human rights impacts of their clients insofar as these may be linked to land conversion (for example, the development of mining operations bordering or in forests, securing mining prospecting licenses, or new agricultural development such as plantations in land cleared by destroying forests).

Correspondent banking: In correspondent banking, a larger, international financial institution (the correspondent bank) provides services to a smaller, often more local one (the respondent bank) that cannot itself provide services or access to certain currencies on behalf of its clients. In this way, the correspondent bank acts as an intermediary or agent - for example by facilitating wire transfers, conducting business transactions, accepting deposits, or gathering documents on behalf of the respondent bank. Through this activity, larger firms are exposed to the business activities and risks of the smaller banks they are providing the correspondent banking services to. These may be in high-risk jurisdictions for land conversion, in less-regulated regions, and/or armed with fewer controls, checks, or resources to undertake due diligence themselves. This lack of oversight can enable funds to flow through the larger banks' networks, potentially financing projects or companies involved in land conversion. The relative opacity of correspondent banking relationships - the larger bank does not always have sight of the 'end client' themselves - and comparatively low traceability of funds means that the sector is vulnerable to exploitation by actors with illicit interests, including those tied to land conversion.

IN FOCUS: CORRESPONDENT BANKING: THE VIEW FROM FOCUS GROUP PARTICIPANTS

Focus group participants consulted on this project discussed the challenge of achieving successful leverage over respondent banks; especially with persuading respondent banks that are already up to date with other risk factors to incorporate additional standards related to land conversion. Participants noted that this would probably first require a consistent and approved set of standards related to land conversion within their own firms (in their role as correspondent banks) - something that would, in turn, require clearer and more overt pressure from FIUs.



Action point for financial institutions: *Given the Wolfsberg Group's recommendation to supplement its Correspondent Banking Due Diligence Questionnaire (CBDDQ) with questions related to additional areas of risk exposure, integrate enquiry around land conversion standards and controls as part of correspondent banking questionnaire process.*

IN FOCUS: CORRESPONDENT BANKING: THE VIEW FROM THE FINANCIAL ACTION TASK FORCE (FATF)

In its 'Money Laundering from Environmental Crime' [report](#), the FATF states that:

Natural resource-rich countries can face challenges accessing global financial markets.

Consequently, they rely on correspondent banking relationships.

Small and medium-sized enterprises (SMEs) increasingly fall outside many banks' risk appetites, meaning that they must use correspondent banks to access the global financial system.

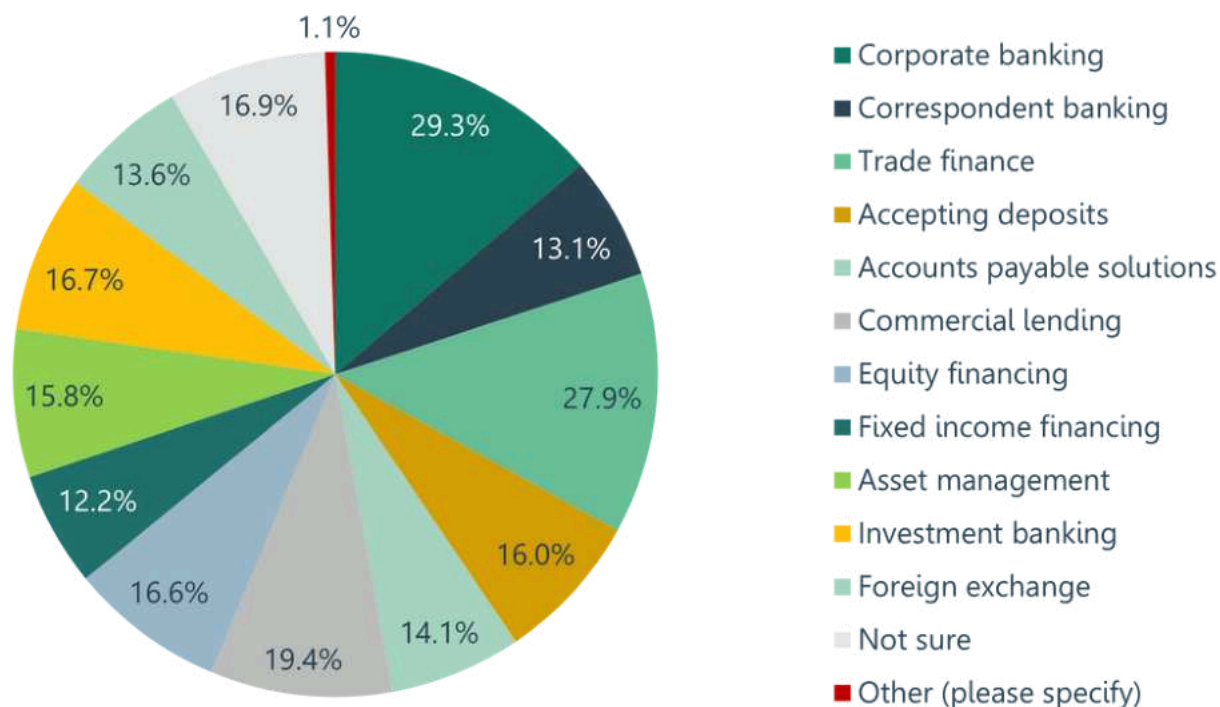
However, many of the larger actors within land conversion business activities like forestry and mining have direct relationships with national and international banks and therefore do not need correspondent banking relationships.

Correspondent banking therefore becomes a higher risk activity in relation to illegal land conversion (or legal land conversion that converges with other illegal activity or financial crime), since it is primarily utilised by SMEs that larger banks, with more developed anti-financial crime controls and risk appetites, have deemed too risky.

Those benefitting from illegal land conversion or related activities can use correspondent banking services to 'nest' activity, which creates additional layers between originator (e.g., those undertaking illegal land conversion or related activity) and obscures their beneficial ownership, decreasing the risk of transactions associated with these crimes being identified.

Fig 1: Graph representing survey respondents' assessment of their financial institution's most vulnerable business activities to land conversion*

What area(s) of your organisation do you think is most vulnerable to potential financial crime activity linked to deforestation and other types of land conversion? Select all that apply:



**Based on data collected as part of an attitudinal survey designed specifically for this project, responded to by 644 professionals from the financial sector from the following countries: Argentina, Belgium, Brazil, Canada, China, Colombia, the UK, France, the US, Hong Kong SAR, Indonesia, Malaysia, the Netherlands, Nigeria, Singapore, United Arab Emirates, and Vietnam.*

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3.2.2 Commodity risk

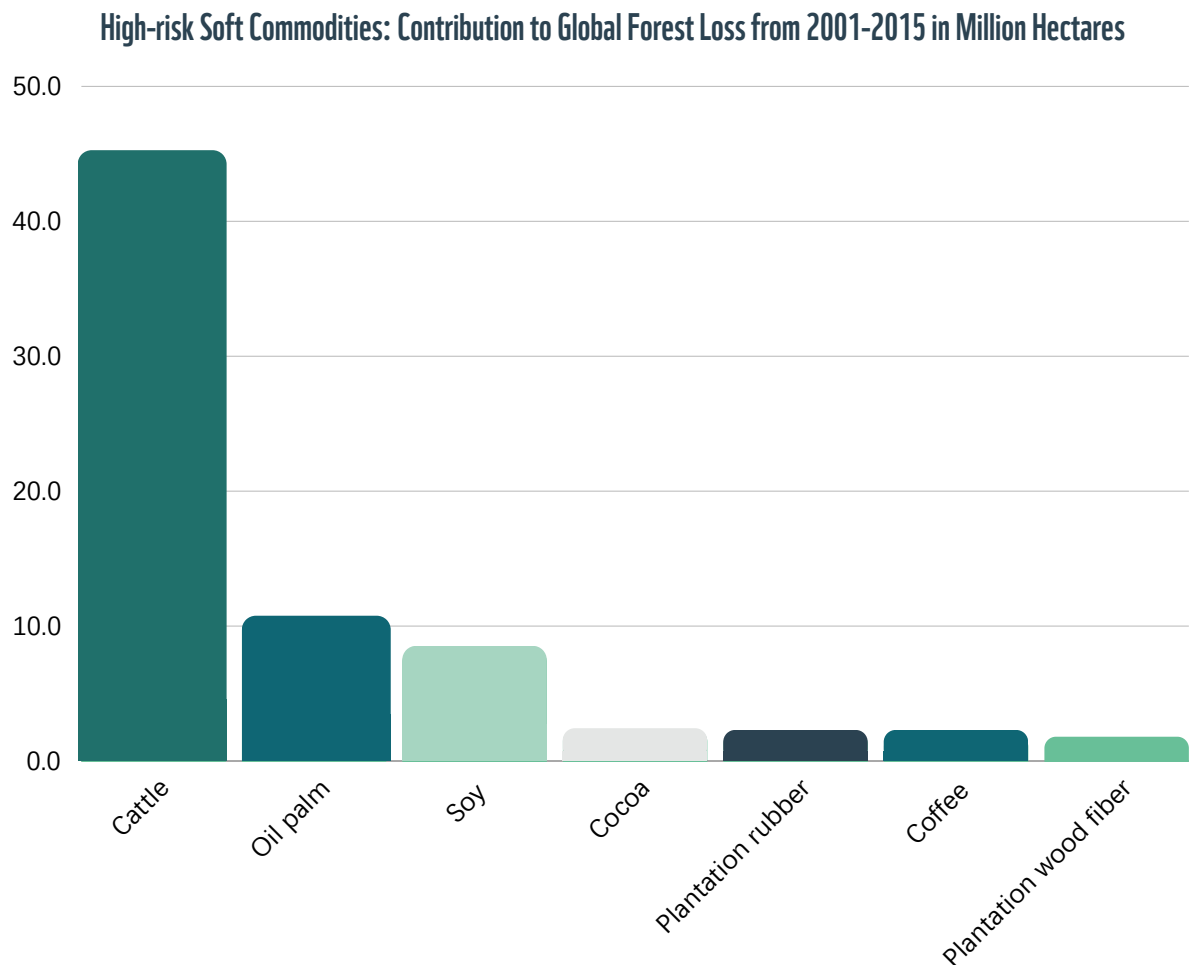
Financial services and products are primarily linked to land conversion through the financing of commodity production. A specific focus should therefore be applied on related high-risk products. Globally, over 90% of forest loss is thought to be from conversion of land from forest into agricultural land, according to [satellite imagery](#) from the Food and Agriculture Organization of the UN (FAO).

The predominant commodities driving land conversion around the world are cattle, soy, palm, timber, coffee, cocoa, rubber, minerals, oil, and gas. The level of risk associated with each commodity depends on the region of origin. For example, [research](#) indicates that in Southeast Asia, rubber, paper and pulp, and palm oil are the commodities that most drive land conversion; in South America, soy and cattle; and in Africa, cocoa, coffee and timber.

Hundreds of billions of dollars of financing for production in the following commodity chains encompasses direct lending, trade finance, primary market debt, and equity issuances.

Soft Commodities

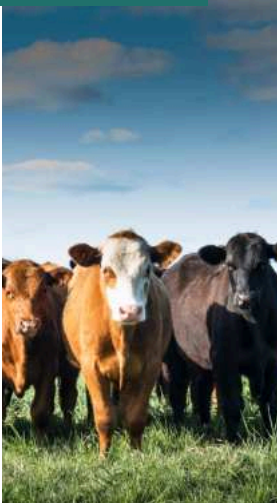
Fig 2: Soft commodity risk



Graph based on data from the World Resources Institute's *Global Forest Review*

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Cattle



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Cattle grazing is a primary driver of land conversion, including deforestation, particularly in Brazil (where it accounts, for 72% of the country's forest loss). Indeed, between 2001 and 2015, the conversion of forests to cattle pasture around the world was five times higher than for any other commodity. Brazil accounted for 48% of this, followed by Paraguay (9%) and Colombia (5%). Globally, around 40% of deforestation can be attributed to livestock grazing (and this figure does not consider the additional land converted to soy plantations driven by demand for soy-based livestock feed).

High-risk products:

- Beef
 - fresh;
 - frozen;
 - processed, including in ready meals;
- Raw and tanned hides;
- Finished leather products - for use in cars, furniture or fashion items.

Palm Oil



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Oil palm is a popular crop owing to its 25-30-year economic lifespan, relatively low labour requirements, and comparatively high income-generating abilities compared to subsistence food crops. Land is cleared to make way for plantations, which includes the planting of crops and erection of processing mills on site (bunches of palm fruit must be processed within 24 hours of harvesting to maintain the quality of the oil) - and is most prevalent in Southeast Asia. Some studies indicate that half of new palm oil plantations in Indonesia and Malaysia replace forests and that this deforestation is very much market-driven – since annual peaks in forest loss for this purpose correspond with peaks in palm oil prices (offset by a one-year lag).

High-risk products:

- Palm oil – for use in
 - processed foods, baked and confectionary products;
 - biofuel;
- Palm kernel oil – for use in the oleochemical industry for making
 - soap;
 - detergent;
 - cosmetics;
 - industrial use;
- Palm kernel meal – for use in
 - animal feed;
 - electricity production.

Coffee



© amenic181 Via Canva.com

Forest loss and land conversion from coffee production occurs predominantly in Indonesia, Brazil, Madagascar, Peru, Colombia, and Vietnam. Coffee plants become less productive as they age, producing fewer berries (the seeds of which are the 'beans'), which then incentivises farmers to convert more land for the purpose of planting new trees.

High-risk products:

- Coffee.

Cocoa



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Although cocoa is produced in 62 countries across the world, the majority (65%) is from Africa followed by Indonesia (17%). Research suggests that cocoa cultivation is an underlying driver of over 37% of forest loss in protected areas in Côte d'Ivoire and up to 40% in Ghana. Cocoa-driven deforestation in West Africa is exacerbated because the associated agricultural activity damages the soil, so farmers may expand to new areas, freshly converting land in the hope of greater productivity and yields.

High-risk products:

- Cocoa liquor or paste – for use in chocolate;
- Cocoa butter or cocoa powder – for use in chocolate and baked goods or confectionary;
- Cocoa pulp - for use in soft drinks, alcohol and pectin;
- Cocoa pod husks and bean shells (less commonly) - used to create cocoa meal used for animal feed.

Soy



Almost all (circa 97%) land converted for soy production is in South America (predominantly across Brazil, Argentina, Bolivia, and Paraguay). Today, global production is over 13 times higher than in the early 1960s and has doubled since the year 2000, currently standing at around 350 million tonnes per year. Around 77% of this is used as livestock feed, for poultry, pigs and aquaculture. Research also suggests that as soy production expands into former pastures, it pushes this pasture further into forested land, expanding the frontier. This means that some forest areas that have been replaced by cattle grazing pasture may not be attributable to increased direct demand for beef or dairy so much as displacement caused by production of soy crops (although, in a reciprocal relationship, soy expansion is also itself driven by demand for livestock feed).

High-risk products:

- Soy meal for livestock feed - and therefore livestock products that may have been fed on soymeal, including poultry, eggs, dairy, beef, and pork;
- Soy oil - as a vegetable oil and an ingredient in processed foods, cosmetics, industrial products, and biodiesel;
- Soy for direct consumption - soy sauce, tempeh, tofu, soy flour, soy milk, textured vegetable protein, and edamame;
- Soy lecithin - used as an emulsifying agent in baked food products and coffee creamer, among others, as well in cosmetics, textiles, paints, coatings, and waxes.

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Rubber



Natural rubber (rather than synthetically produced from petroleum byproducts) is derived from the rubber tree, which is now predominantly grown in Southeast Asia, which accounts for over 90% of global production (although native to Brazil and the Guianas, South American rubber trees often suffer from a fungal leaf blight). The remainder comes from South and Central America and Central Africa.

High-risk products:

- Rubber balls, medical equipment, latex gloves, balloons, boots, tyres (which tend to be a blend of synthetic and natural rubber);
- As a component in industrial and engineering applications.

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Timber



The timber sector covers trees harvested to produce, among other things, sawn-wood, plywood, particleboard, furniture, fuelwood, pulp, and paper. Existing forest can be cleared to make way for monoculture plantations, or trees can be felled and sold for timber and associated products (like wood pellets, derived from forests in West Africa and used to heat low-carbon boilers in homes across Europe). Globally, there has been a shift in the sector over the past couple of decades away from wood being felled from natural forests towards land clearing for the purpose of cultivating monoculture plantations. Although paper consumption in North America and Europe has decreased since the early 1990s, given the rise in digital communication, demand across Asian market continues to rise.

High-risk products:

- Construction materials;
 - In flooring, as solid wood, laminate or parquet blocks - window frames, doors and doorframes, skirting, decking, garden buildings, telegraph poles, fencing, boat building, railway sleepers, and tool handles;
 - In furniture - softwood (e.g., pine), plywood or laminate flat pack furniture and luxury hardwood;
- As a component in industrial processes - often as wood pellets, e.g., for electricity generation;
- In food processing - e.g., for smoked goods;
- Paper - used in magazines, books, stationery, office paper, boxes, packaging, tissues, labels, wet wipes;
- For fuel.



Hard Commodities

Minerals



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In some areas, like Suriname and Guyana, hard commodities like minerals have overtaken soft commodities like cattle and agriculture as the leading cause of deforestation (indeed, mining is currently considered to be the fourth largest driver of deforestation worldwide). This is something of an accelerating trend: more than 35% of all mining-related deforestation in tropical forests from the past two decades has occurred in the last five years.

Mining activity is a key driver of forest loss, as land is cleared not only for excavation pits but also for associated infrastructure, including access roads and workers' settlements. This increasingly impacts and encroaches on protected areas of land; in Brazil, for example, 219 protected areas overlap with mining claims. Other countries, including Indonesia, Russia, Canada, the US, Australia, Ghana, and Myanmar, are also exhibiting a discernible trend of downgrading and downsizing protected forest areas to allow for mining activity.

Minerals related to land conversion are primarily gold, coal, bauxite, iron ore, and copper. Minerals required for 'green' or 'clean energy' technologies like electric cars also contribute to land clearing. Despite the increase in demand for clean energy minerals, however, 71% of global direct mining-related deforestation can still be traced to just two mineral commodities: coal and gold.

High-risk products:

- Gold - found in jewellery, processors and connectors in electronics like computers, tablets, televisions, printers, gaming consoles, modems and smartphones;
- Coal;
- Bauxite - used in aluminium production and the manufacture of other industrial products such as abrasives, cement and chemicals;
- Iron ore - predominantly used to produce steel found in ovens, washing machines, fridges, dishwashers, planes, trains, ships, trucks and cars, and as a component in animal feed and fertiliser production;
- Copper - used in electric generators, electrical wiring in houses, appliances and cars, in roofing, plumbing and industrial machinery;
- Cobalt – used in lithium batteries, as well as in airbags for cars, and magnets;
- Nickel – used to manufacture stainless steel, as well as nickel sulfate – a key ingredient in the making of batteries for electric vehicles;
- Rare earth elements - used in wind turbines, televisions, magnets, and X-rays.

CLEAN ENERGY MINERALS: POWERING THE GREEN ECONOMY AND DEFORESTATION?



Copper is a key mineral used in renewable energy systems across the world to generate power from 'clean' sources of energy like solar, hydro, thermal, and wind energy and to help the world transition away from fossil fuels. In large-scale mining, copper is often mined alongside gold, which makes it difficult to attribute deforestation to any single commodity. However, with indications that not enough copper is currently being mined to meet the requirements of the transition to low-carbon energy sources, burgeoning demand and prices is also incentivising illegal miners. Indeed, illegal copper mining has risen in the Amazon as illicit gold miners diversify their income streams and across Zambia's Copperbelt, where organised crime groups' involvement is common.

Cobalt, a key component in batteries, contributes to lead clearing in Sub-Saharan Africa. Although it is hard to calculate how much deforestation in the Congo Basin is directly attributed to cobalt mining, since the region's resource-richness has led to forest loss for many overlapping extraction activities, it has been estimated that millions of trees have been cut down for this purpose. The Democratic Republic of Congo possesses half of the world's cobalt reserves (four million tonnes, as of 2022), and currently accounts for around 70% of global production. The high incidence of associated forced and child labour in the country when it comes to mining this key mineral has led commentators to coin the term 'blood cobalt'.

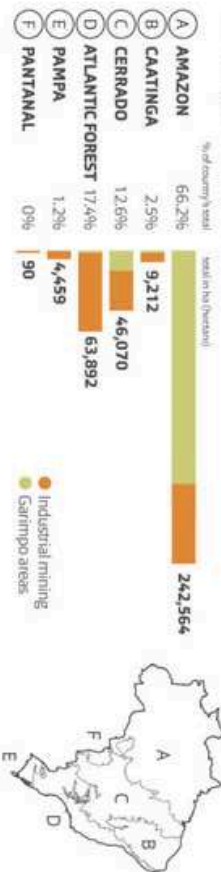
Rare earth elements – 17 scarce metallic elements which power magnets used in wind turbines and electric vehicles - require land clearing for mining across China, Thailand, Myanmar, Brazil, the US, Russia, Madagascar, India, Australia, Vietnam, and Burundi, and have been associated with human rights abuses in many of these jurisdictions. For example, a six-month-long investigation by Global Witness of satellite imagery and local community interviews revealed that the number of rare earth mines in Myanmar's Kachin state had expanded from just a handful in 2016 to over 2,700 spanning almost 300 separate locations by March 2022, with the area of forested hills impacted equivalent to the size of Singapore. This dramatic expansion, which is also financing groups linked to the military junta, is reportedly being driven by China's outsourcing of its own rare earth mining industry to Myanmar.

Nickel, used in lithium-ion batteries in electric vehicles, has also caused deforestation across Indonesia to make way for open pit mining of low-grade laterite (from which nickel is extracted). Although laterite nickel tends to be found close to the surface of the earth, it is generally spread across large areas, meaning mines usually require expansive land clearing. According to a 2022 investigation by the Pulitzer Center, Sulawesi, an island of Indonesia, has lost more than half a million hectares of forest since 2011; according to GlobalData, in 2022, 127 of the world's 186 nickel mines were in located in the country. Global demand for nickel is slated to grow to over 40 times its 2020 levels, which may incentivise illegal as well as legal miners.

FIG 3: BRAZILIAN LAND USE CHANGE ASSOCIATED WITH MINING BY AREA, BIOME, AND MINERAL

Mining in Brazil 1985-2021

Mining area by biome



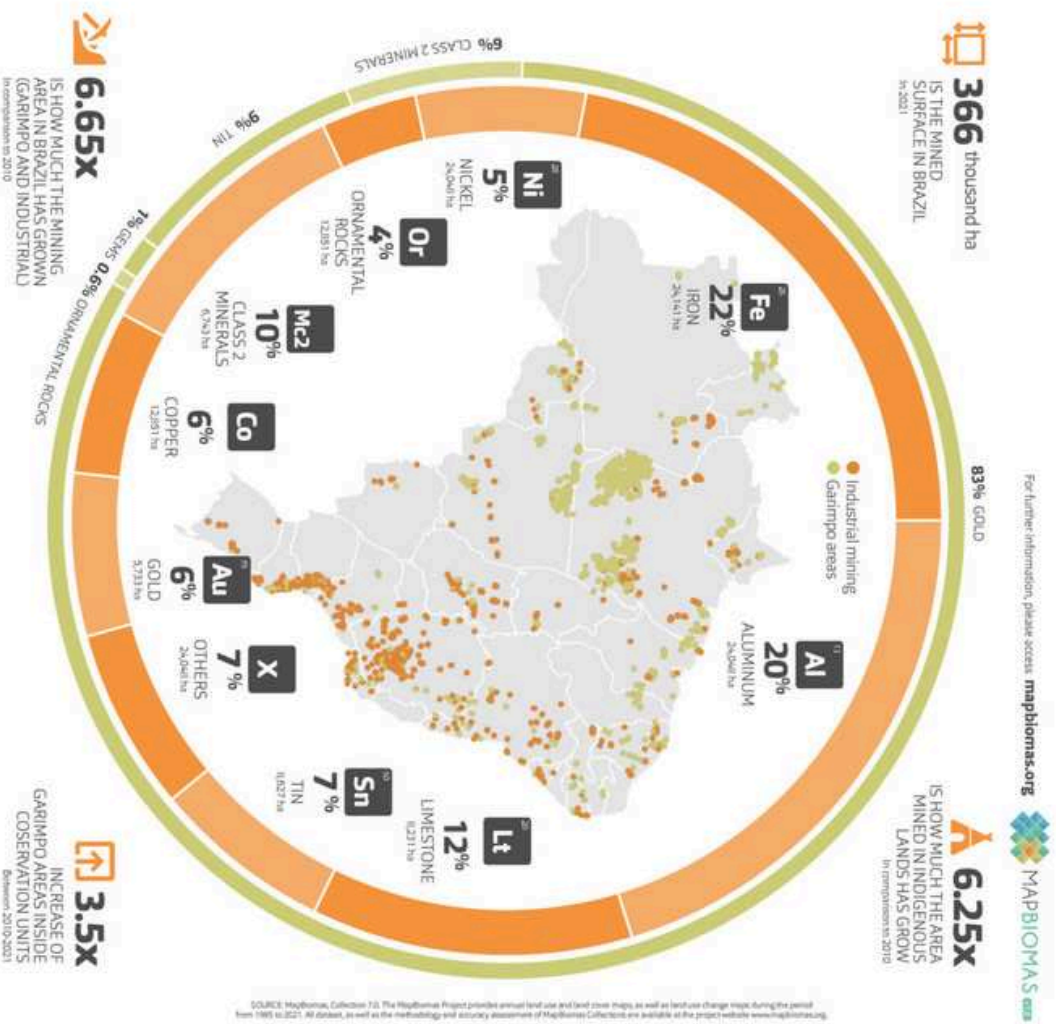
Ranking by states



Ranking by municipalities



Mining history in Brazil thousand ha



366 thousand ha
IS THE MINED SURFACE IN BRAZIL
In 2021

6.25x
IS HOW MUCH THE AREA MINED IN INDIGENOUS LANDS HAS GROWN
In 1990/2000 vs 2019

6.65x
IS HOW MUCH THE MINING AREA IN BRAZIL HAS GROWN (GARIMPO AND INDUSTRIAL)
In 1985/2010

3.5x
INC REASE OF GARIMPO AREAS INSIDE CONSERVATION UNITS
Between 2010/2021

Source: [MapBiomas](http://MapBiomas.org)

SOURCE: MapBiomas, Collection 7.0. The MapBiomas Project provides annual land use and land cover maps, as well as land use change maps during the period from 1985 to 2021. All datasets, as well as the methodology and accuracy assessment of MapBiomas Collection are available at the project website www.mapbiomas.org.

Oil and Gas



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The western Amazon (Colombia, Ecuador, Peru, and Brazil) has been subject to increasing exploration activity for oil and natural gas (indeed, over 70% of the Peruvian Amazon, which encompasses multiple Indigenous territories and conservation areas, is now under such concession). Analysis has also revealed that over a third of Africa's Congo Basin overlaps with existing or planned oil and gas exploration and production areas. The Congo basin is home to the world's second largest tropical rainforest, comprising swampy peatland forest that spans six countries (Cameroon, the Central African Republic, the Democratic Republic of Congo, the Republic of Congo, Equatorial Guinea, and Gabon) and acts as a critical carbon sink that stores around 29 billion tonnes of carbon – equivalent to three years' global fossil fuel emissions. These peatlands are at risk of land clearing for the sake of oil exploration, with the Democratic Republic of Congo auctioning off rights for oil exploration in large areas of the forest and other protected areas, like the Virunga National Park in the eastern part of the country, home to critically endangered species like the lowland gorilla.

High-risk products:

- Natural gas;
- Oil;
 - Petroleum;
 - Items made from petroleum byproducts, including pharmaceuticals, vehicle components (eg., synthetic rubber tyres, brake fluids and bearing greases), electronic goods, plastic products, and paint.



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CASE STUDY:

DRAWING LESSONS FROM THE KIMBERLEY PROCESS TO TACKLE BANKS' COMMODITY RISK

When designing and implementing initiatives to help financial institutions better address land conversion globally, it may be useful to look at previous models used across the sector to combat other environmental crimes with a predicate crime component. The financing and trade of conflict diamonds is one such example, and a lens through which to study both achievements and challenges.

Against the backdrop of a series of civil war and other violent conflicts in countries like Sierra Leone and Zimbabwe in the early 2000s, international attention was caught by so-called "[blood diamonds](#)" - diamonds sourced illegally or illicitly using forced labour and violent practices. In response, policy leaders and the diamond industry came together in 2003 to form a multilateral trade regime called the [Kimberley Process](#). The process, hailed as a major step towards ending diamond-fuelled conflict, today has 59 participants representing 85 countries (with the EU counting as a single participant). The core of this regime is the [Kimberley Process Certification Scheme \(KPCS\)](#), under which member states implement safeguards on shipments of rough diamonds in order to certify them as "conflict free".

The Kimberley Process demonstrates the value of multilateral collaboration, with the initiative bringing together government, civil society, and industry partners. Active involvement is required, with participating members and other stakeholders meeting twice annually to discuss progress and ongoing issues related to the illicit trade of diamonds. Adherence and implementation are also monitored to ensure commitment, including through the regular exchange of data, statistical analysis, and annual reports.

Banks play a key role in this scheme, ensuring compliance of diamond certification before they directly finance or provide other financial services to diamond trading clients. When a bank's client imports rough diamonds, it can request a copy of its Kimberley Process certificate to verify that the diamonds have been scrutinised and approved by relevant import and export authorities to confirm their conflict-free origin.

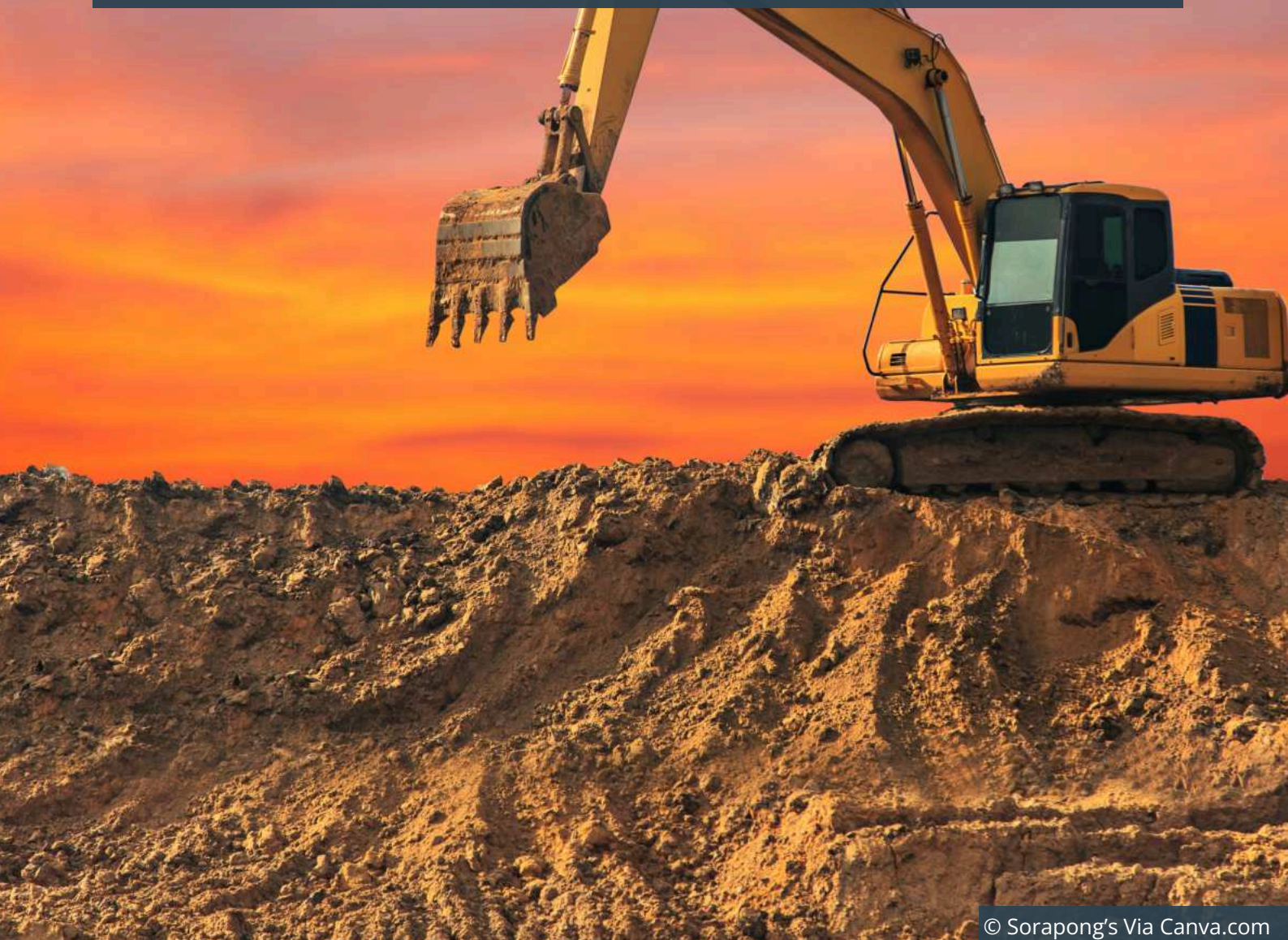
The [Kimberley Process](#) has significantly reduced the use of conflict diamonds on the open market and has also spurred economic growth based on the legal trade of diamonds. Ian Smillie, one of the early architects of the process and an authority on conflict diamonds, [estimates](#) that only 5 to 10% of the world's diamonds are traded illegally now compared with 25% before 2003.

It is important to note, however, that despite the success of the Kimberley Process, some experts believe it has not gone far enough in combating the trade in illicit diamonds and related financial crimes. Smillie, for example, [argues](#) limitations on the basis that the scheme's definition of conflict is too narrow. Other experts have [expressed concerns](#) over a lack of compliance from participating governments and loopholes in the process that continually allow conflict diamonds to pass into the hands of the consumer, including widespread trafficking in source regions. These issues highlight the importance of robust definitions and governance frameworks when designing and implementing multilateral initiatives.

CASE STUDY: LAND CONVERSION EXPOSURE THROUGH PROVISION OF MACHINERY

An investigatory report by Greenpeace led to allegations that South Korean machinery manufacturer HD Hyundai Construction Equipment (HD HCE) contributed to deforestation in the Amazon by providing excavators to illegal gold miners operating within Indigenous territories, in areas of Brazil which were degraded 202% more between 2019 and 2021 compared to the preceding decade.

In the Indigenous lands of Yanomami, Munduruku, and Kayapó, 75 Hyundai excavators were identified during aerial surveys conducted between 2021 and 2023. Illicit mining activities have led to a humanitarian crisis in these areas; for example, contaminated rivers have posed health risks to Yanomami adults and children.



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3.2.3 Value chain risk

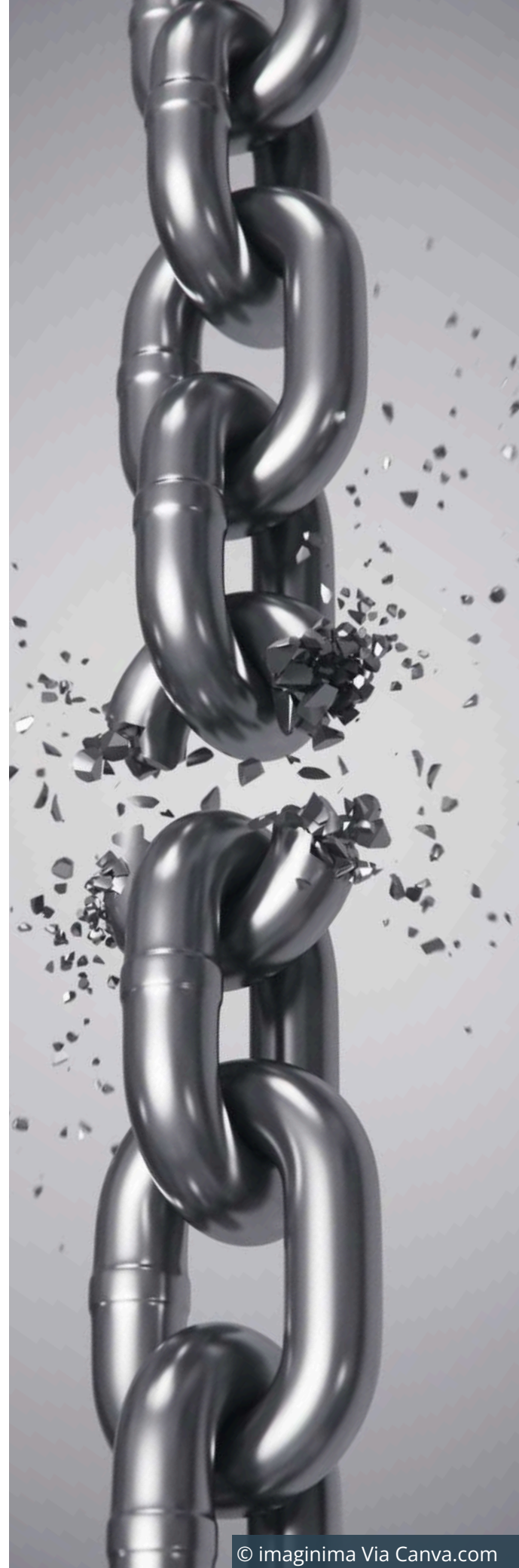
Financial institutions' exposure to high-risk commodities can occur through the following touchpoints in value chains.

Capital costs: Even before the commodity is produced (e.g., grown, reared, extracted), firms may be exposed to land conversion risk through the financing of activity to buy and clear the land (like machinery and equipment) or create the infrastructure necessary to access it (e.g., roads, airstrips, ports, and temporary accommodation for those working on the site). This may be via the provision of fixed or working capital loans or lines of credit, investments in or the raising of funds for entities undertaking these activities, or trade finance for the export and import of machinery and construction materials.

Production: Production of the raw commodities that drive land conversion take place in situ, like the planting or harvesting of crops, extraction of metals and minerals, or cattle ranching. Financial institutions may expose themselves to risk if they invest in or provide lines of credit, loans or insurance to entities that undertake such activities.

Processing: Investing in, or providing fixed or working capital loans or insurance to, entities engaged in food production, whether at a primary (e.g., milling), secondary (e.g., baked goods), or tertiary (e.g., ready meals which have commodity derivatives embedded in them) stage, can expose firms to land conversion, if the processing activity or products involve high-risk commodities.

Transporting: Financial institutions may be exposed to land conversion if they provide trade finance for the transport of high-risk commodities, including the raw product (e.g., soybeans), intermediate products (e.g., processed soy oil), and consumer goods (e.g., ready meals containing soy, or pork that was produced from pigs fed on soymeal). They can also be exposed through the insurance of vessels carrying these goods, or direct investment in - or provision of finance to - transportation or logistics companies.



Trading: Financial institutions face both direct and indirect risk exposure to land conversion through the international commodities market - whether they are active as traders themselves in the physical or derivative markets, or provide commodity finance to external traders.

Retail and distribution: Retailers that sell products ultimately derived from land conversion activities are increasingly coming under media scrutiny, and financial institutions that lend to or invest in such companies risk exposing themselves to the same. For example, CDP's annual Forest Report has labelled the retail and food and beverage sector as among the worst-performing industries for putting deforestation commitments into practice and for recognising "hidden dependencies" on forests embedded in supply chains. The report flagged, for example, that grain farms in Brazil, for which trees in the Amazon rainforest were felled, have been traced to animal feed used to produce meat and dairy products sold in UK supermarkets.



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4

CONVERGENCE WITH PREDICATE CRIMES - THE RISK TO FINANCIAL INSTITUTIONS

Enabling the transport, import and distribution of the products of land conversion

“

Expecting or asking one country to combat illegal logging while at the same time, receiving or importing illegal logs does not support the efforts to combat these forest crimes....In fact, allowing the import and trade of illegal timber products could be considered as an act to assist or even to conduct forest crime.

MUHAMMED PRAKOSA, INDONESIA FOREST MINISTER, JANUARY 2003

4.1 Definitions: predicate crime

Predicate crimes are crimes that are components of a larger crime; in a financial context, they serve as the underlying criminal act that generates proceeds or funds for the subsequent illegal activity. The term is generally used in relation to money laundering.

As part of international efforts to combat serious crime, the FATF lists a number of predicate offences (or 'designated offences', as it calls them) in its 40 Recommendations, alongside standards and guidelines for countries to implement anti-money laundering and countering the financing of terrorism (AML/CFT) legislative measures and establish regulatory frameworks to enforce these. Countries codify predicate offences into their own national legislation; for example, the EU's Sixth Anti-Money Laundering Directive (6AMLD) lists 22 predicate offences (which the UK also adopted into national law before it left the EU) and the US Bank Secrecy Act (further expanded by the USA Patriot Act) covers over 200.

TABLE 1: LIST OF 22 PREDICATE OFFENCES AS DEFINED UNDER 6AML D

Predicate crimes to money laundering under 6AML D	
Participation in an organised criminal group and racketeering	Kidnapping, illegal restraint, and hostage-taking
Terrorism	Robbery or theft
Trafficking in human beings and migrant smuggling	Smuggling
Sexual exploitation	Tax crimes relating to direct and indirect taxes
Illicit trafficking in narcotic drugs and psychotropic substances	Extortion
Illicit arms trafficking	Forgery
Illicit trafficking in stolen and other goods	Piracy
Counterfeiting and pirating of products	Insider trading and market manipulation
Environmental crime	Corruption
Murder and grievous bodily injury	Fraud
Counterfeiting of currency	Cybercrime

Tracing back the proceeds of crime and understanding the link between predicate offences and money laundering is key to authorities' efforts to disrupt and dismantle criminal networks and the financial infrastructure that supports them. Identifying predicate offences and recognising these underlying crimes allows law enforcement to trace the illicit financial flows and establish connections, as well as providing crucial insight into the nature and scope of criminal activities. It further enables law enforcement agencies to anticipate emerging trends and adapt their own approaches accordingly by way of preventive measures to mitigate the risks posed by these crimes.

4.2 Predicate crimes and land conversion

Land conversion can be undertaken legally or illegally but, either way, it frequently intersects with a range of predicate crimes which drive, enable, and correlate with this environmental destruction. This means that financial institutions that have links to land conversion activities through their business - even if those activities are ostensibly legal - may also be exposed to any number of serious predicate crimes (for example, fraud or tax evasion).

Increasing this risk is that such exposure may be indirect and therefore 'unknown'; for example, via lines of credit or through facilitation/support provided to large agribusinesses. Banks may help investors purchase green investment assets, which generate funds linked to key agribusiness companies implicated in many of the predicate offences outlined in this report. Banks facilitating such bond transactions set the price of these bonds and sell them onto investors in exchange for a fee linked to the total value, indirectly exposing them to the risk of related financial crimes.

This is often through third parties or investment funds into large retailers where the links to land conversion are currently poorly understood. Indeed, between 2013 and 2019, circa 69% of tropical forest agro-conversion was conducted in violation of national laws and regulations (e.g., entailing human rights abuses, fraud and corruption, breaches of environmental law) – and this is likely an underestimate, since a lack of evidence of illegality is not necessarily indicative of legality so much as a dearth of data or adequate reporting.

A selection of the predicate crimes most commonly associated with money laundering and therefore screened for by financial institutions are presented below, in relation to some of the key drivers most responsible for deforestation.



FIG 4: DRIVERS OF DEFORESTATION AND CONVERGENCE WITH COMMONLY SCREENED-FOR PREDICATE CRIMES

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		Convergence With Other Predicate Crimes											
		Financial Crimes				Trafficking Fines		Environmental Crimes			Terrorist Financing	Organised Criminal Activity	Money Laundering (proceeds of crime)
		Corruption, Extortion & Bribery	Fraud	Tax Evasion	Trade Based Money Laundering	Human Trafficking	Drugs Trafficking	illegal Mining	Illegal Logging	Illegal Wildlife Trade			
Drivers of Land Conversion	Agricultural Production			X		X	X					X	X
	Cattle Grazing / Ranching		X		X		X					X	X
	Oil & Gas Exploration	X											
	Forrestry	X	X		X		X		X	X	X		
	Mining	X			X	X	X	X	X		X	X	
	Infrastructure Development											X	

Given this extensive convergence, the presence of land conversion should itself be treated by financial institutions as a red flag and key indicator for other serious and predicate crimes; and the associated financial data a rich source from which law enforcement can glean valuable insights.

4.3 Drivers and enablers

4.3.1 Illegal mining

Illegal mining – where land is cleared both for mines and their associated infrastructure – is a driving cause of deforestation across the Amazon, Southeast Asia, and the Congo basin, and occurs when mining licences or permits have not been obtained, or have been obtained illegally (for example, through forgery or bribery). Illegal mining activity may be run by legitimate companies that are operating beyond the parameters of their license, by serious organised crime groups or as part of the largely informal economy of artisanal or small-scale mining (through which basic tools (rather than large scale machinery) are used to extract minerals, precious metals, and gemstones, including designated conflict minerals). There is also a significant risk associated with legally sourced mining supply chains intersecting with illegally sourced metals and entering consumer markets.

In the early 2000s, the intersection of the US-led “War on Drugs” – which particularly targeted Colombia and Mexico – and rising prices of gold incentivised criminal groups to diversify their operations away from drug trafficking and into gold mining, which enabled them to generate far higher profit margins with lower risk. Indeed, in Colombia and Peru – the world’s largest producers of cocaine – the value of illegal gold exports exceeds that of cocaine; perhaps unsurprising, given that gold can fetch almost twice the price of the drug, ounce for ounce.

A [2022 report](#) by Interpol estimated illegal mining to account for up to [USD 48 billion](#) a year globally in criminal proceeds. In [Peru](#), almost USD 7 billion out of USD 14 billion in illicit transactions detected between 2011 and 2020 were linked to illegal mining, while in [Colombia](#), trade mis-invoicing in the mineral sector represented over USD 5.6 billion in illicit financial flows between 2010 and 2018.

Artisanal mining is generally thought to represent the greatest area of predicate crime risk, allowing criminal actors to enter the sector with ease; acting as aggregators or middlemen. However, large-scale mining may present a greater risk of corruption and tax evasion, with shell companies often used to obscure beneficial ownership – and an ongoing risk related to illegally sourced flows entering established supply chains remains.

Convergence with other predicate crimes



Corruption, bribery, extortion, fraud and cybercrime (like database hacking) can be used to illegally obtain mining permits or licences, or to forge them.



Human trafficking, child labour, forced labour, and sex trafficking and sexual exploitation are often used in mining operations or found in mining camps.



Environmental crime, for example, via [mercury pollution](#), which can severely impact on the health of local populations as well as surrounding ecosystems is common.



Shell companies and complex company structures, including registration in secrecy jurisdictions and tax havens, can be used to obscure beneficial ownership and **evade tax**.



Organised criminal activity underpins much illegal mining, including those engaged in drug trafficking (and which it can be used to [launder](#) the proceeds of). It can also be used for **terrorist financing** (as has been observed in [West Africa](#), for example).



Illegally mined gold is a [key vehicle](#) for **trade-based money laundering**, since it can be melted down into different forms and/or mixed with licit gold, as well as transported in high volumes.



Mining and its associated infrastructure (like roads) allows for easier access to biodiverse areas which illegal wildlife traders can exploit. Miners themselves are known to [opportunistically poach](#) and engage in the **illegal wildlife trade**, too, including via selective **illegal logging** of valuable tree species for subsequent trafficking.

CASE STUDY

ILLEGAL GOLD: FUELLING AND FINANCING ORGANISED CRIME GROUPS AND PENETRATING LEGAL MARKETS

Research from NGO Verité found that up to 91% of Venezuela's and 87% of Colombia's gold exports are illegally produced, often controlled by organised crime groups backed by large-scale investments. Some of the world's most active organised crime groups and non-state armed groups are reportedly directly involved in the production and sale of such illegal gold, including Mexico's Sinaloa cartel and Italy's 'Ndrangheta mafia, as well as Brazilian, Russian, and Chinese syndicates.

Illegally produced gold from Latin America is exported to refineries (with the help of corrupt officials), melted down and blended with legally produced and scrap gold, or mixed to make alloys, then exported to global markets. Canada and the US are the biggest importers of Latin American gold – indeed, the latter's gold imports from Latin America exceed the total volume of gold that Latin America claims to export.

Whilst Switzerland is responsible for refining around 70% of globally-produced gold, some of the country's refineries have stopped purchasing gold from Latin American suppliers linked to illegal gold mining and human rights abuses, leaving a gap in the market which US refineries have rushed to fill, purchasing this surplus gold in Switzerland's place and introducing it to global markets. Indeed, Verité found that 90% of the Fortune 500 companies that filed conflict mineral disclosures last year (from across telecoms, IT, car manufacturers, and machinery producers) had purchased gold from refineries linked to illegally mined gold from Latin America.

In 2022, over 320 illegal gold mines were counted in the nine states that make up Brazil's Legal Amazon. Major drug trafficking factions, including the Primeiro Comando da Capital, have infiltrated mining operations in Indigenous territories, running protection rackets, extorting taxes, controlling pits, and forging partnerships with gangs in neighbouring Venezuela to sell contraband minerals. Gold is also the top export of Bolivia, where the mining region transects national parks and reserves.

4.3.2 Illegal logging

Timber companies and lone traffickers also trade illegally in protected species of timber which are regulated by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), like rosewood and mahogany. Loggers may fell trees from species or areas which their permits do not allow for; for example, valuable ipê or trumpet trees (encompassing *Handroanthus* spp., *Roseodendron* spp. and *Tabebuia* spp.) targeted by traffickers are often surrounded by other types of trees which allows for selective logging without felling an entire area – satellite imagery can therefore be fooled, and traffickers evade detection. Whilst selective logging may not result in full deforestation of an area, it degrades forested land and is vastly enabled by the timber trade, which does.

Convergence with other predicate crimes:



Workers engaged in illicit logging in certain regions (for example, across Africa) are vulnerable to **forced labour** conditions, including deception over wages, working hours, and legality of the work, abuse and harassment, and **child labour**.



The Environmental Investigation Agency (EIA) states that wildlife and forest crimes are “inextricably linked”, with traffickers using the same trading and shipping methods for illegal logging and the **illegal wildlife trade**, and illegal wildlife products being smuggled in hollowed out timber through the same geographical hotspots. Many of the same serious organised crime groups are behind both illegal wildlife, drugs trafficking, and forest crimes.



Legal and illegal timber can be mixed to effectively launder illicit wood through **trade-based money laundering**.



Fraud, via misreporting, abuse of licences, and forged permits, are rife, as are corruption, including collusion of officials, **tax evasion** (for example, via transfer pricing or the use of front companies), and the circumvention of charges: in Papua New Guinea, for example, companies reportedly change their names at pace when presented with a court order so that they can continue with illicit activity.



Sanctions evasion; for example, in 2021, Germany company WOB Timber was found guilty of violating EU sanctions on timber imported from Myanmar. The Regional Court in Hamburg convicted the company for evading sanctions on 31 shipments of timber worth millions of euros between 2008 and 2011 when the previous military junta, the State Peace and Development Council (SPDC), was sanctioned by the EU. This is not an isolated case; there are other global examples of timber exports connected to sanctioned individuals and companies entering European and North American markets.

CASE STUDY: ILLEGAL LOGGING IN PAPUA NEW GUINEA

Logging concessions cover nearly 11 million hectares - about a quarter of Papua New Guinea's land area – and sources increasingly suggest that they are used by corrupt politicians as a tool for building personal wealth. The Governor of the country's Oro province has been a vocal critic of the logging cartels operating in the region over the past decade, describing all such logging ventures as unlawful, as they don't have informed consent of landowners (and, indeed, a report by Chatham House has deemed at least 70% of logging in the country illegal). While loggers may seek specific tree species with high timber value (for example, Papua New Guinea rosewood (*Pterocarpus indicus*)), much of this logging activity nevertheless involves the indiscriminate felling of trees, which are subsequently taken to log yards and sorted through, with the high value timber selected at this stage.

According to a 2017 National Risk Assessment by the Bank of Papua New Guinea, illegal logging in the country poses a significant threat to money laundering. The assessment stated that there are strong indicators of large-scale corruption and illegal logging in the forestry sector in the country which result in high levels of proceeds of crime. It is widely accepted that the problem is widespread and that the lost revenue is extensive.

A 2021 report noted that according to online company filings in Papua New Guinea, the country's commercial banks have provided at least K300 million (USD 79 million) in available credit to the top five log exporting companies since 2000. However, nearly two-thirds of the registered financing transactions are for an unspecified amount, and the top five exporters only account for 52% of total log exports. As such, the total credit made available to the entire logging industry could reasonably be more than three times this amount.

4.3.3 Drugs trafficking

Drug production directly and indirectly drives land conversion. So-called “narco-deforestation” activities include:



The reinvestment of drug trafficking proceeds – for laundering purposes – into legal and illegal land acquisition and subsequent conversion of forest into pasture for cattle or agricultural land for soy and palm oil plantations (which also frequently involves human rights abuses during the forceful eviction of Indigenous Peoples and local communities from the land).



The clearing of land to make way for infrastructure and transit routes like roads, makeshift river ports, and airstrips to transport drugs.



The conversion of land in South and Central America to plant coca, which is cultivated for cocaine.



The conversion of land into poppy plantations for opium and heroin production in Mexico.



The conversion of land for cannabis plantations in Madagascar and South and Central America (over two million marijuana plants were seized in the Legal Amazon between 2015 and 2020, for example - over half of which were in Brazil's Pará State).



IN FOCUS: INDIGENOUS LAND RIGHTS



Most of the world's cocaine - over 1,000 metric tonnes a year - transits through the Amazon Basin via approximately 900 different drug routes to over 65 transit and destination countries. There are over 1,200 unregistered airstrips in the Brazilian Amazon alone; at least half of these are located on protected land or Indigenous territories.

Often under-policed with limited state presence and social services, Indigenous Peoples and local communities face disproportionate impacts from deforestation and its criminal nexus, suffering forcible displacement, poisoning from water, air and soil pollution, and increased exposure to violence and victimisation.



CASE STUDY: COCA CULTIVATION IN COLOMBIA

From 2001 to 2022, northern Colombia's municipality of Tibú lost the equivalent of 150,000 football fields' worth of tree cover, with coca cultivation attributed as one of the key drivers. Although cultivation of the coca plant – from which cocaine is produced – accounts for far less land conversion globally than cattle-grazing, it is a vital source of income relied on by over 230,000 families in the country. Indeed, an over-reliance on and overproduction of the crop in Tibú and other coca-producing regions of Colombia has seen the value of coca paste - often used as a local substitute for cash - drop by 40% from 2022 to 2023, which has left locals struggling to support themselves. Whilst the crisis has presented an opportunity for transitioning farmers away from coca and towards more sustainable economies, many are instead turning to activities with an even more environmentally destructive effect, like illegal gold mining, which is now circa 50 times more profitable than coca, thanks to the increase in value by 360% between 1990 and 2020.

Convergence with other predicate crimes:



Organised criminal gangs with diversified income streams often operate **illegal mining operations** and **engage in illegal logging** at the same time as **drugs trafficking**.



Drugs traffickers may rely on **corruption, bribery, and extortion** to help them smuggle their drugs along transit routes or persuade officials to turn a blind eye to their drugs cultivation or production, as well as **fraud** for **transit documentation**.

4.3.4 Serious organised crime activity

Environmental crimes in the Amazon are becoming increasingly organised in nature. Transnational organised crime syndicates are rapidly diversifying their income streams, engaging in wildlife, drug, mineral, and timber trafficking simultaneously. These goods often share the same transit routes, trading and shipping methods, and processes, moving through the same geographical hotspots, ports, and consolidation hubs.

Criminal groups that previously operated in cities and urban areas that relocated to the Amazon to occupy drugs trafficking routes have stayed to take advantage of the natural resources of the rainforest, like gold and timber, which give them a “high growth potential.”

These activities require initial land clearing, with further land subsequently converted for the purpose of ostensibly legal pursuits like farming, mining, and ranching, which provide a means for criminal organisations to launder their illicit profits. In Mexico, for example, a common tactic is to clear forest, sell the timber and grow avocado trees in its place. In many regions of Latin America, governments have invested in agribusiness, offering subsidised credit and grants and tax break incentives which tempt illicit actors into industry. In Honduras, for example, land is cleared by narco-traffickers in wetlands and mangrove swamps to plant illegal oil palm crops to both legalise drugs trafficking income and to legitimise groups' presence in areas through which trafficking routes are used.





IN FOCUS: TRANSNATIONAL ORGANISED CRIME



There is no universally agreed definition on transnational organised crime; indeed, even the UN Convention on Transnational Organized Crime (UNTOC) deliberately omits a precise definition in order to allow for its “broader applicability to new types of crime that emerge constantly as global, regional and local conditions change over time.” However, its definition of an organised crime group is:

- a group of three or more persons that was not randomly formed;
- exists for a period of time; and
- acts in concert with the aim of committing at least one crime punishable by at least four years' incarceration, in order to obtain, directly or indirectly, a financial or other material benefit.

The UNTOC's understanding of crimes that are 'transnational' is offences committed in more than one state; that take place in one state but are planned or controlled in another; committed in one state by groups that operate in more than one state; or that are committed in one state but have substantial effects in another state.

Taking account of the global complexity of the issue, transnational organised crime therefore encompasses “virtually all profit-motivated serious criminal activities with international implications”.

IN FOCUS:

ORGANISED CRIME GANGS: COLLABORATION AND CONFLICT



In some areas, organised crime groups collaborate by sharing infrastructure - like roads and air strips - and smuggling routes to expand their operations. In others, cartels vie for resources, resulting in inter-gang conflict and violence which is destructive to local communities and can catch civilians in the crossfire. Collaborating gangs can also compete with other groups of cooperating criminal enterprises; for example, in Mexico, in 2020, it was reported that La Línea and the Juárez Cartel were fighting for control over the illegal wood industry against the Gente Nueva (now known as Los Chapitos), an armed faction of the notorious Sinaloa Cartel.

Amazon Underworld, a cross-border investigative mapping and reporting initiative, found presence of organised crime and armed groups in all border municipalities of Colombia's Amazon. In this region, illegal armed groups have overcome cultural and language barriers to work together and to offer work to individuals with few other economic opportunities. Criminal gangs appear to seek young Indigenous men who are physically strong, able to carry heavy loads, and have a good knowledge and understanding of the jungle.

Dissident former members of the now-demobilized Revolutionary Armed Forces of Colombia (FARC) rebel group have been linked to Brazilian criminal groups, including Comando Vermelho and Primeiro Comando da Capital (PCC), which are known to recruit local people to move illegally mined gold and drugs through the rainforest.

IN FOCUS:

THE MURDER OF ENVIRONMENTAL HUMAN RIGHTS DEFENDERS



Environmental human rights defenders were killed at a rate of one every other day during 2022, according to Global Witness, with a fifth of killings happening in the Amazon rainforest. Murders were largely orchestrated by land invaders and organised crime groups, many of which have gone unpunished. Disproportionately, over 30% of those murdered were Indigenous Peoples, despite making up just 5% of the population.

EXTORTION AND VIOLENCE



Crime gangs may extort or threaten landowners with violence – making low offers to land proprietors and violently taking over if the offer is rebuffed. In certain areas, a common threat is: “If you don’t want to sell the land, fine. The widow sells it cheaper.” There may be little recourse for threatened landowners; for example, in Mexico, there are few options available beyond lodging a complaint with federal officials who are frequently themselves threatened, kidnapped, or extorted by cartels. Indigenous Peoples and local communities residing in or near areas vulnerable to land conversion are also frequently subject to extortion and threats of violence.

Convergence with other predicate crimes:



Serious organised crime gangs often rely on the same forms and networks of **bribery, extortion, and corruption** regardless of the type of trafficking they are engaging in.



They also make use of the same **fraud** techniques – like mis-invoicing, permit trading, trade-database hacking, or fraudulent bills of lading – when smuggling goods.



Several organised crime gangs are known to draw on labour from **human trafficking** victims, especially in their illegal mining and illegal logging operations.



Crime syndicates profiting from land conversion may make use of companies domiciled in high secrecy jurisdictions and tax havens to further **evade taxes**.

4.3.5 Terrorist and conflict financing

Many non-state armed groups and rebel factions are known to engage in land-clearing to finance their activities through the trade of natural resources like timber; a source of income recorded across the world in countries such as Myanmar, the Democratic Republic of Congo, Afghanistan, and the Central African Republic - especially since many conflict zones are in the vicinity of forests where governments have little reach. For example, according to a [report by the UN Security Council Committee's Monitoring Group on Somalia and Eritrea](#), a primary source of al Shabaab's revenue appears to be the [collection of unofficial taxes on charcoal](#) at road checkpoints and ports (charcoal in the region is produced from the aromatic wood of felled Acacia trees (*Acacia bussei*) and is a sought-after luxury item for grilling meat in the UAE, Oman, Saudi Arabia, and Yemen). In Somalia's [Badhadhe District](#), the group has reportedly generated up to USD 18 million per year from taxing charcoal traffic. Indeed, the degree to which charcoal serves as a source of revenue for criminals and non-state armed groups in Somalia resulted in a UN Security Council Resolution [embargoing](#) the export and import of Somali charcoal.



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The Democratic Forces for the Liberation of Rwanda (FDLR), an armed rebel group linked to Rwanda's 1994 genocide and active in the eastern Democratic Republic of the Congo, is also known to finance its activities through charcoal derived illegally from trees growing in the Virunga National Park – an increasingly deforested area of the Congo Basin.

Convergence with other predicate crimes:



In Somalia, many **organised criminal gangs** and networks operate in conjunction with al-Shabaab, using ethnic and clan-based networks and **rampant corruption** to smuggle commodities, like illegal charcoal, out of the country.



Fraud, such as the falsification of customs documentation, is widely used to disguise the origins of illegal Somali charcoal when it arrives in the UAE and instead indicate that it has been shipped from countries like Pakistan, Ghana, Djibouti, Côte d'Ivoire, Kenya, Tanzania, and Comoros – thereby also enabling **sanctions evasion**. Certificates of origin may be completely forged or obtained via **corruption, extortion, and bribery**, with the involvement of intermediaries or officials from consulates or embassies.

4.3.6 Corruption and bribery

Corruption underpins and accelerates a significant proportion of illegal land conversion. Often, the same agencies tasked with safeguarding endangered species of animals, trees, protected territories, and precious minerals are susceptible to bribes and coercion. Instances of local or national government officials issuing licenses allowing extractive sector companies to operate in environmentally protected areas or areas in which safeguards – like studies – are required (but avoided) in exchange for bribes are common.

Corruption can present itself in a variety of ways throughout forestry supply chains. As identified by INTERPOL, bribery is the most common typology of corruption in the forestry sector, followed by fraud, abuse of office, extortion, and cronyism. For instance, bribes can be paid to public officials for timber concessions or to allow illicit timber to pass through checkpoints, or to custom officers to facilitate the illegal export of the timber. Here, officials can be bribed to ignore illegal timber and forge traceable supply chains by fraudulently verifying the passage of timber from concession through checkpoints and to sawmills that never see the wood itself. Knowing that officials can be bribed and corrupted further incentivises criminals to engage in lucrative illegal land conversion activities.

Organised criminal groups may be supported and backed by an array of political and economic figures who finance, protect, and profit from illegal activities. Corruption on the part of brokers, fixers, and shipping agents is often also required to ensure that illicit commodities reach their destination.

In a bidirectional relationship, hefty profits derived from land-clearing activities can also be used to bribe judges and prosecutors working against criminal groups (including those undertaking illegal deforestation), further fuelling corruption and destabilising the rule of law.

4.3.7 Tax evasion

The use of offshore jurisdictions to establish corporate structures that facilitate environmental crimes have been observed by the non-profit sector across Asia, Africa, the Caribbean Basin, the Middle East, and Europe. Consultations carried out by the FATF as part of its 'Money Laundering from Environmental Crime' [report](#) indicate that criminals in South America, for example, often establish corporate entities in the Caribbean islands that directly interface with prospective buyers involved in the refining of a product (like gold). All funds then pass through these corporate structures, either remaining in these transit jurisdictions as a means of placement or returning to the source country – likely to fund further illegal activity.

The FATF also notes that tax crimes related to environmental crime demonstrate the use of offshore banking as well as corporate structures outside the jurisdiction where the illegal activity took place.



IN FOCUS:

TAX EVASION: DRIVING AND DIRECTLY FUNDING LAND CONVERSION



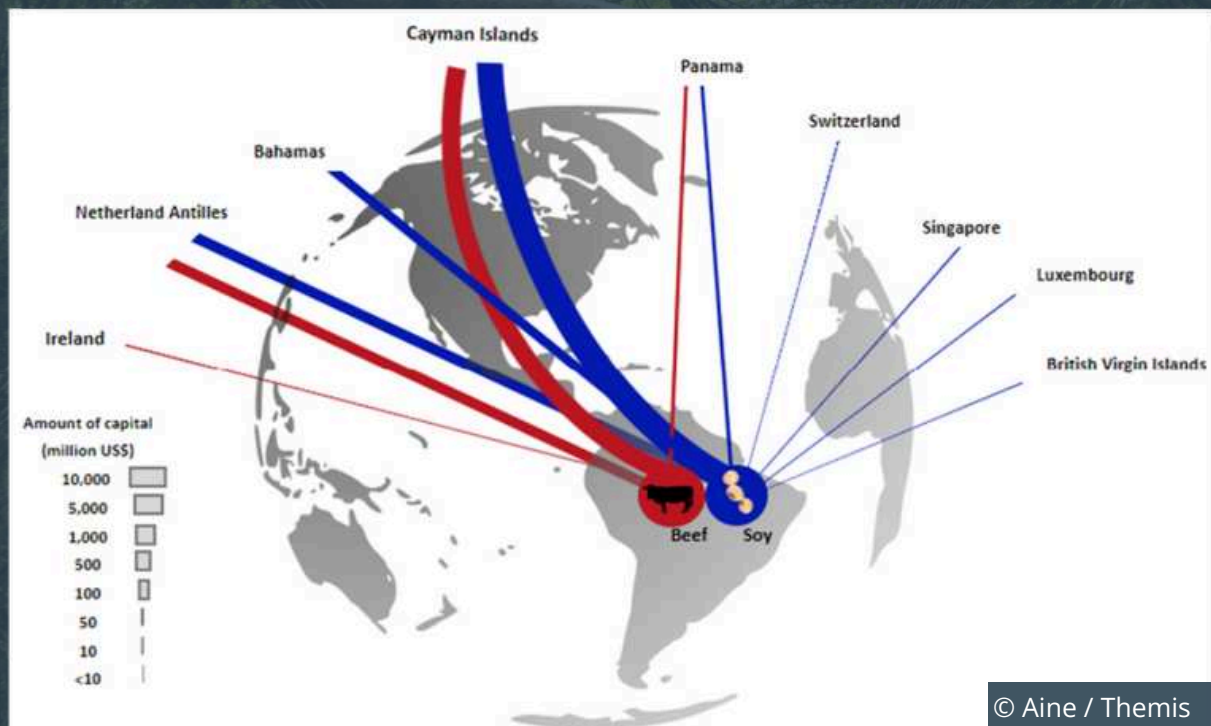
A [study](#) found that tax havens offer a major conduit through which investors can fund agribusiness in tropical areas; 68% of all investigated foreign capital flowing into nine of the top companies in the soy and beef sectors in the Brazilian Amazon was transferred through tax havens between 2000 and 2011. A large proportion of this was through the Cayman Islands. The report noted that the secrecy and transparency offered by such havens appear to be important to those investing large sums in agribusiness companies responsible for significant land conversion in the Amazon, likely because it protects them and allows them to more thoroughly conceal their involvement.

“

The commodity chains are quite complex of course, but simply put, economic activities on the ground need capital to be able to operate, and we find it interesting, and worth discussing, that a lot of this capital is transferred from subsidiaries located in tax haven jurisdictions”.

VICTOR GALAZ, ASSOCIATE PROFESSOR AND DEPUTY DIRECTOR AT THE STOCKHOLM RESILIENCE CENTRE AT STOCKHOLM UNIVERSITY, LEAD AUTHOR OF THE STUDY 'TAX HAVENS AND GLOBAL ENVIRONMENTAL DEGRADATION' (AS TOLD TO MONGABAY)

FIG 5: INBOUND CAPITAL FLOWS FROM TAX HAVENS INTO THE BEEF AND SOY INDUSTRIES IN THE BRAZILIAN AMAZON



Foreign capital (loans, cash in advance, financed import and leasing/rental) transferred from tax havens between October 2000 and August 2022 to key economic sectors associated with land-use change in the Brazilian Amazon.

*Based on data from [Tax havens and global environmental degradation](#), published in *Nature, Ecology & Evolution*.*

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Complex corporate structures, which enable tax evasion, can also be employed to obscure the identity of the individuals and organisations ultimately controlling and benefitting from the destruction of forest areas. Illicit actors often form such structures with multiple layers of ownership registered in offshore jurisdictions characterised by high levels of corporate secrecy, enabling them to both launder money and evade taxes. In doing so, they deprive governments in source countries of much needed revenue to support, for example, healthcare, education, and other fundamental necessities. As such, the human rights impacts of land conversion are both direct (for example, when Indigenous Peoples and local communities are dealt with violently) and indirect (since associated illicit financial flows deprive governments of their ability to make available the resources to fulfil their human rights obligations).

According to the [FATE](#), a challenge for financial investigators is differentiating between the use of invoicing to evade taxes and to hide illegal activity (like illicit mining or deforestation); tax evasion may end up being a secondary crime merely facilitated by the use of vehicles in offshore jurisdictions whose primary purpose is actually to obfuscate the underlying crime.

4.3.8 Fraud

Specific fraud and forgery techniques are widely employed at all stages of illegal land conversion – from fraudulent permits used to access forested areas to trade invoice documents used to transport illegal timber.

Common fraud techniques include:

- Fraudulent bills of lading, frequently handwritten and easily altered to change the origin of the shipment, the commodity listed, or the company responsible for shipping a container.
- Underreporting of the type or quantity of protected species of timber on shipping documents.
- Falsification of certification for premium or sustainably sourced timber.
- Fraudulent statements of income presented to federal tax authorities to evade taxes.
- Landowners obtaining permission to cut down more trees than they intend to log, selling unused credits to lumber mills and other farmers.
- Mixing illegally obtained pulp with legally produced plantation wood. Once wood is processed into pulp, only laboratory analysis of fibres can reveal the species of tree and country of origin.



Convergence with other predicate crimes:

- Fraud is further used as means of enabling the **evasion of taxes** associated with land conversion and **evasion of sanctions** (for example, on the export and import of illegal Somali charcoal).

4.3.9 Trade-based money laundering

As already detailed, drugs traffickers and organised criminal gangs contribute to land conversion when they deliberately clear land through which to launder the proceeds of drugs; for example, for the purposes of cattle ranching, avocado farming, the monoculture of other crops like soy and oil palm, mining, or timber sawmills. They may also commingle shipments of illegal and legal timber or products of deforestation (e.g., minerals) as a trade-based money laundering technique.

4.4 Correlating crimes

4.4.1 Illegal wildlife trade

Both the EIA and the FATF have identified a key convergence between the illegal wildlife trade and illegal logging and associated trade. The spread of illegal infrastructure, such as the construction of unauthorised roads in national parks to facilitate logging - which may be enabled by corruption and bribery of local officials or a lack of enforcement capacity - significantly contributes to land conversion. It also plays a pivotal role in enabling readier access to exotic wildlife, which poachers exploit. Opportunistic – as opposed to strategic and planned - poaching also occurs, especially from miners, loggers, and other construction workers who are involved in forest degradation and land conversion – for the purpose of immediate consumption, domestic trade or international trade (for example, for sale for use in the Traditional Chinese Medicine (TCM) industry, as has been documented with opportunistic miners and loggers hunting and killing jaguars in the Amazon rainforest in Suriname, or doing so ‘to order’ from local merchants - jaguar paste can fetch around USD 3,000 per jar as a TCM remedy for joint pain and sexual potency).

Timber companies can maximise profits by enabling the trafficking of illegal wildlife products, by acting as front operations wherein their legal logging activities act as cover and provide a means of laundering illicit products. For example, there have been cases of flora or fauna species (as well as drugs) smuggled in hollowed out logs (these can then be filled with wax and resealed) or fake logs, or hidden amongst larger timber shipments, which might manifest in the over- or undervaluing of cargo.

4.4.2 Human trafficking, forced and slave labour, and child labour

Some estimates indicate that as much as 40% of all deforestation worldwide is carried out by victims of modern slavery or forced labour and that slave-based deforestation is responsible for the emission of around 2.54 billion tonnes of carbon dioxide each year. Using trafficking victims to undertake physically dangerous activities like logging and land clearing allows those running the operations to de-risk and scale-up their activities whilst saving on costs. Slave and forced labour is also heavily utilised in operations that require prior deforestation or land clearing, such as mining, agriculture, or charcoal production.

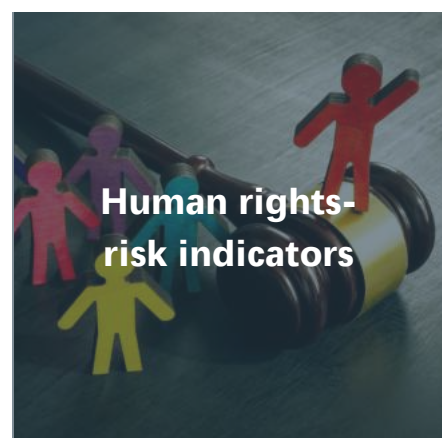
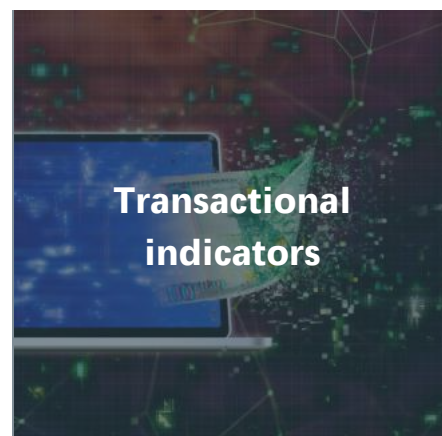
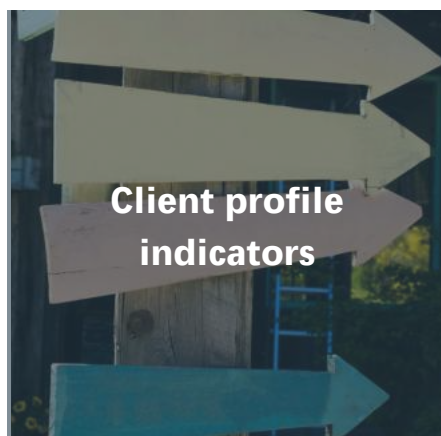
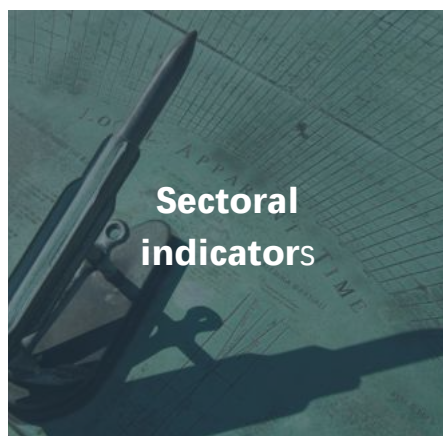
4.5 The importance of screening and monitoring

Given this extensive potential convergence, firms need to fully understand the possible links between land conversion activities and predicate crimes, integrating these evolving typologies into their screening and monitoring systems to better discern their exposure and risk, and to avoid regulatory breaches. The toolkit will package up these areas of convergence into practical red flags that firms can incorporate into their existing controls, including:



© Andre Dib / WWF-Brazil

Geographic indicators (high-risk source, transit and destination regions and trade routes)



These will also form the basis of a digital risk assessment tool that firms can use to identify and quantify their potential exposure to predicate crimes linked to land conversion activities. The toolkit will also contain sections detailing relevant case studies and guidance on how to build an effective strategic framework for managing land conversion-related (and, later, other environmental crime-related) risk, in recognisable terms and language for firms (including systems and tools, policies and processes, training and culture, governance, and tone from the top).

Finally, it will include a section on the “global voices tackling land conversion”, which will showcase international and local on-the-ground efforts to combat illegal activity related to land conversion.

The toolkit will also include a dedicated panel on red flags and typologies associated with land conversion-linked predicate crimes; as such, these will not be reproduced in detail in this report. Understanding red flags and typologies is key to ensuring comprehensive assessment and monitoring of predicate crime risks, as seemingly unrelated patterns can help uncover suspicious activity.

The following is an example list of risk indicators for corruption and bribery.

A person wearing a dark blue hoodie is shown from the chest up, holding a fan of Euro banknotes. The background is dark, and the lighting highlights the texture of the hoodie and the details of the banknotes.

RISK INDICATORS FOR CORRUPTION AND BRIBERY

- Commodity or product is originally sourced from a country with higher levels of corruption, such as a country listed as high-risk on the Transparency International Corruption Perceptions Index.
- Commodity or product is originally sourced from a country with an opaque system for resource extraction and license issuance, including regions where the presence of authorities for monitoring and enforcement is limited.
- Product or commodity is part of a long, overly complex supply chain that allows for bribery and corruption to take place in the sourcing, procurement, or shipping life cycle.
- Unexplained wealth or cash activity of an individual, especially with no clear business relationship or commercial history, involving senior officials, politically exposed persons (PEPs), or relatives of close associates (RCAs) of PEPs, especially those with responsibility related to the management or preservation of natural resources.
- PEPs or their RCAs leveraging complicated corporate structures when doing business in higher risk sectors such as forestry or mining.
- PEPs or public officials with responsibilities for environment management or protection travelling to offshore jurisdictions for undisclosed business activities.
- Certificates of origin or other documentation that appears misleading, inaccurate, or otherwise suspicious.
- Companies operating in mining or forestry sectors holding contracts with provision of another unrelated government service or activity.
- Individuals and entities cited by law enforcement, media, or investigative journalists as being involved in bribery, corruption, environmental, or other organised crimes.

5

CASE STUDIES

The following case studies illustrate some of the ways in which a range of predicate crimes converge with land conversion and how certain typologies are used to facilitate, obscure, or launder the proceeds of associated illegal activities.

More case studies will be provided in the toolkit as an illustration for firms, alongside detailed lists of the red flags and typologies that correspond with each crime type.

5.1 Cattle laundering in South and Central America

Cattle can both themselves be laundered (if they are grazed on land that has been illegally cleared and converted to pasture) and used as a means of laundering criminal proceeds from other exploits, like drugs trafficking.

In Brazil, cattle have been laundered to obscure their links to land clearing, when they are moved from ranches that have contributed to land conversion through “clean” ranches that have not resulted in recent forest loss.

In 2009, several Brazilian slaughterhouses signed the Terms of Adjustment of Conduct, an initiative of the Federal Prosecution Office and the Public Commitment on Cattle Ranching, and a voluntary protocol developed by Greenpeace, which precludes them from purchasing cattle reared on deforested land. However, a single cow might pass through up to 10 farms before it is slaughtered (from birth, through rearing and fattening). Any of these farms might be linked to illegal deforestation but many slaughterhouses assess links to deforestation only on the last farm a cow passes through - their direct supplier. As long as the last farm in the supply chain is from a “clean” ranch that is free from recent deforestation then slaughterhouses (and subsequent transporters and retailers, like supermarkets) are likely to mark them as deforestation-free, even if they have spent the majority of their life on and have passed through nine other ranches that have been converted from forested land. Indeed, data indicates that some ranchers own both “dirty” and “clean” ranches and launder cattle through their own properties. So long as one property is kept clean, they can continue to clear land for cattle grazing purposes on any number of other ranches.

Other investigations by Global Witness have found that ranchers have fraudulently edited the boundaries of their ranch once they have cleared areas of land, so that this land conversion is no longer included within the property’s scope and the ranch appears free from deforestation. This is alleged to be the case for the Fazenda Espora de Ouro II Ranch in Brazil’s Pará state, which Global Witness also found appears to be registered in the name of an individual who could not legally be its owner (based on assessment of a database of land titles and beneficiaries).

3

Cattle sold to slaughterhouses that only conduct checks on their direct suppliers – the fattening farms

2

Cattle sold to fattening farms that are free from deforestation

4

Slaughterhouse sells meat to retailers

1

Cattle are born and reared on land which has recently been deforested and converted to pasture

5

Meat appears to be deforestation-free



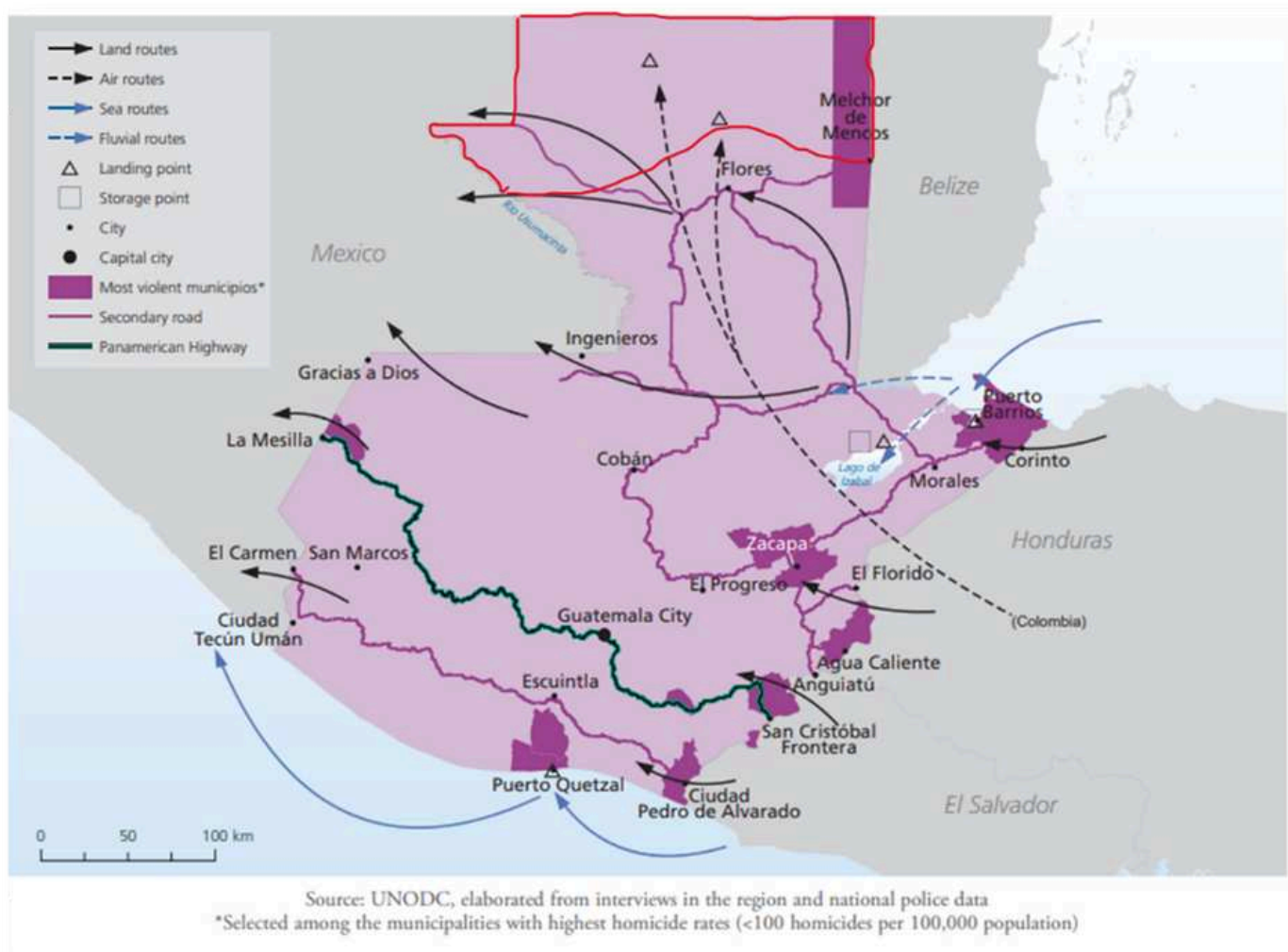
© Jeffrey Shwartz Via Canva.com

Based on data from: <https://www.vox.com/science-and-health/2022/10/19/23403330/amazon-rainforest-deforestation-cattle-laundering>.

Cattle can also – and concurrently – be used as a means of laundering the proceeds of illicit activity. Drug traffickers – especially in Colombia (where the traceability of beef produce is particularly poor), Honduras, and Guatemala – are known to launder revenue from drugs by buying or grabbing land which they convert into pasture for cattle, which they also purchase with narco-trafficking proceeds. When the cattle are sold, profits are hard to trace back to the drug network and their illicit proceeds are effectively laundered. This practice, known as “narco-ranching”, is suspected of contributing up to 87% of deforestation in the Maya Biosphere Reserve, a large UNESCO heritage area of forest which covers over 2 million hectares of rainforest across northern Guatemala and borders other protected forests in Mexico and Belize. The Reserve is highly vulnerable to deforestation by crime groups due to its strategic location along a significant drug trafficking route up through Guatemala and Mexico leading to the US.

Cattle ranching in such areas also frequently serves to hide airstrips and production facilities used by traffickers to produce and transport drugs or other illicit products. Airstrips now pepper the Maya Biosphere reserve, which are used by planes coming in from Colombia and Venezuela loaded with cocaine to be smuggled across the border into Mexico.

FIG 6: COCAINE TRAFFICKING ROUTES INTO GUATEMALA THROUGH THE MAYA BIOSPHERE RESERVE (OUTLINED IN RED)



Source: https://www.unodc.org/documents/data-and-analysis/Studies/TOC_Central_America_and_the_Caribbean_english.pdf

5.2 Laundering illegally mined gold in Colombia

Illegal gold mining is known to be a serious problem in Colombia - demonstrated by the fact that it exports more gold than it officially produces. According to the UN Office on Drugs and Crime (UNODC), illegal mining operations in Colombia take place in over 970 different locations, spanning more than 64,000 hectares - and in 2020, an estimated 69% of the country's gold was mined illegally.

In 2019, a team of prosecutors from Colombia's Attorney General's Office led an operation dubbed Leyenda del Dorado (Legend of the Gold) to dismantle a ring of alleged illegal gold suppliers, including C.I.J. Gutiérrez (CIJG), one of the largest gold companies in the country. The company aroused the suspicion of authorities when tax and customs records indicated that it went from exporting circa USD 146,000 worth of gold in 2006 to over USD 453,000 six years later. A review of CIJG's financial transactions from the past decade revealed fictitious operations used to launder money to the value of around USD 740 million and allow for the sale of illegally mined gold on legal global markets. The primary export destinations for CIJG's gold were the US and Switzerland, demonstrating the ease with which illicit gold derived from land conversion-linked activities can penetrate these markets. Indeed, gold companies were implicated in roughly a quarter of all suspect transactions across the FinCEN Files, an investigation published in 2020 on illicit financial flows across the world.

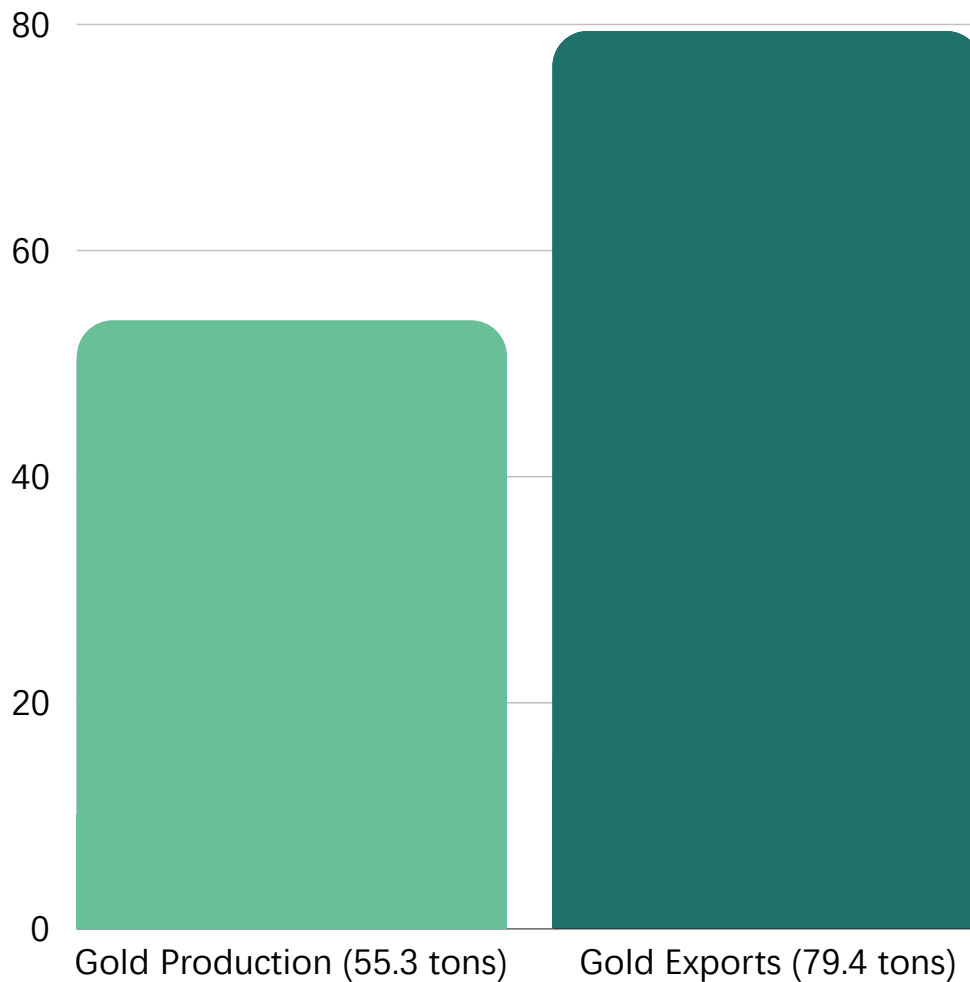
A 2016 investigation discovered that around 8% of the 100,000 mining claims listed at Colombia's National Mining Agency were registered to small-scale artisanal or subsistence miners, known as "barequeros" (who mine fragments of gold on riverbanks without the use of machinery) that were either dead or had never existed. Companies use these fake barequeros as aliases to 'prove' that gold has been legally acquired through authorised mining operations – a legal prerequisite if they are to export the precious metal. Prosecutors linked this practice to CIJG when they discovered that two murdered men had been registered as barequeros and gold suppliers to the company.

The mining permits of such barequeros registered by CIJG were used for trade purposes and to send millions of dollars in transactions but there is no evidence of any corresponding mining activity (indicating it was mined illegitimately elsewhere). This allowed for large sums of money to be laundered abroad and for illegally mined gold to be sold on licit markets in the Europe and the US. Executives from another Colombian gold mining firm, C.I. Goldex, were also arrested in 2015 on charges of faking millions in transactions, which included the falsification of signatures and fingerprints.



FIG 7: DISCREPANCY IN COLOMBIA'S GOLD PRODUCTION AND EXPORT DATA, INDICATING HIGH LEVELS OF ILLEGAL MINING

Colombian Gold Production Data Versus Gold Export Data in Tonnes for 2021



© Aine / Themis

5.3 Bribery, corruption, tax evasion, and human rights abuse in Papua New Guinea's palm oil and logging sectors

Around the year 2000, Malaysia was being deforested at a faster rate than any other nation on earth, losing 14% of its rainforest – mostly to palm oil plantations – over the course of just 12 years. The increased scrutiny and pressure placed on Malaysian companies and the role they played in land conversion in the intervening decades incentivised them to look elsewhere for new business opportunities, and the virgin forests of Papua New Guinea appeared a lucrative alternative. With Malaysian palm oil companies rapidly moving into the area, Papua New Guinea became one of the largest exporters of tropical lumber in the world, with many companies looking to maximise profit by subsequently planting palm oil plantations on land that had recently been deforested for timber. Today, Papua New Guinea is one of the largest producers of palm oil in the world and its interests in the market are growing, as it plans for a ten-fold increase in production by 2030.

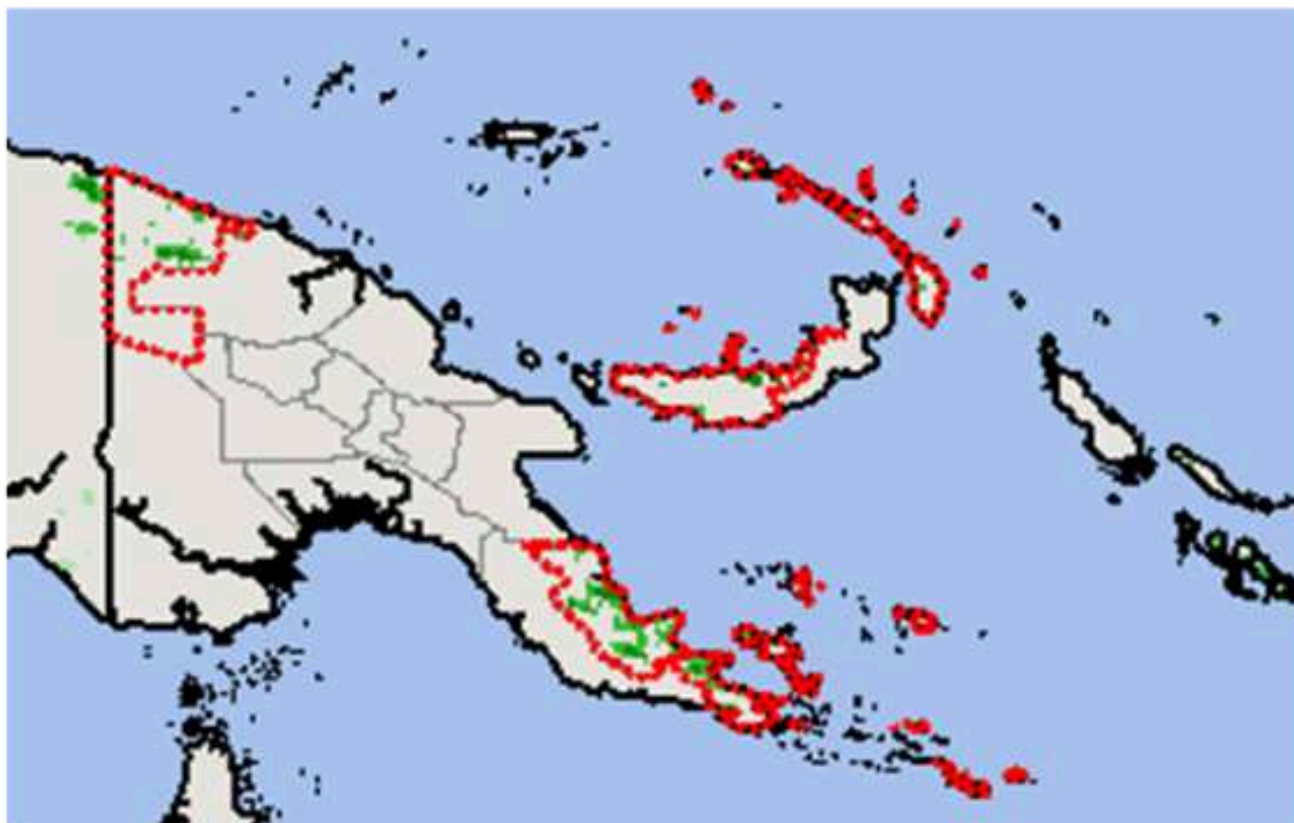
In a 2022 [investigation](#) by Global Witness, several palm oil managers reportedly admitted to corruption and labour abuses taking place over the previous five years, including a former deputy provincial administrator for East New Britain (a region of the country) who went on to become a founding director of Tobar Investment Ltd., a Papua New Guinea-registered agricultural company. According to Global Witness, the company (which operates alongside the East New Britain Palm Oil Ltd (ENBPOL) - part of the Malaysian-backed East New Britain Resources Group (ENBRG) - under a joint venture agreement), also bribed the local police force to conduct a violent raid on a village to brutalise locals who had objected to palm oil plantations and activities.

The land acquisitions manager of another Papua New Guinea-registered company ([Tzen Niugini](#), owned by [Kenlox Global Limited](#), which is domiciled in the tax and secrecy haven of the [British Virgin Islands](#) but has Malaysian directors and shareholders) [allegedly bragged](#) about his use of corruption and bribery of government officials to obtain logging permits and land access. Executives of the company also reportedly admitted to using child labour, having workers as young as 10 working on the plantations, despite national law stating that children under the age of 16 cannot be employed in heavy labour.

The investigation also unveiled schemes used by these companies to [evade import duties in India](#). The Chief executive of the ENBRG reportedly admitted that companies operating in Papua New Guinea made it appear that their palm oil was instead exported from Malaysia, since imports of Malaysian crude palm oil are taxed less heavily than their Papua New Guinea counterparts.

Numerous [household brand names were implicated](#) in Global Witness' investigation, as buyers of palm oil and its derivatives produced under these conditions.

FIG 8: PRIMARY AREAS OF PALM OIL PRODUCTION IN PAPUA NEW GUINEA (ACCOUNTING FOR 80% OF NATIONAL OUTPUT) IN 2022



Source: The Foreign Agricultural Service, US Department of Agriculture

In 2023, the Internal Revenue Commission (IRC) of Papua New Guinea also announced that it had imposed a USD 40 million tax against a prominent logging operator (the identity of which, at the time of writing, has been withheld) for engaging in illicit tax evasion via transfer pricing. This transfer pricing entailed the undervaluing of the price of logs that were sold and exported to a company within the same multinational group (a connection which the group sought to obscure through offshore ownership), in order to shift profits to the company in the lower tax jurisdiction, reducing profit margins and therefore liable taxes in Papua New Guinea.

The IRC analysed the logging operator's financial performance, which indicated that it was in too poor a position to be able realistically to maintain itself and to engage in any "arm's length" behaviour with independent parties (as it was pretending to do with its fellow undeclared subsidiary).

The IRC credited its success in the investigation in large part to progress in international tax cooperation in recent years, alongside "powerful tools" like the exchange of information standard, which allowed it to obtain information on foreign taxpayers from tax administrations in other jurisdictions and confirm the suspected association. It is worth noting that participants in a focus group held as part of this project also noted the importance of free data flows and a culture and framework of information-sharing between jurisdictions as well as institutions.

Data that helped the IRC confirm the association related to:



Management (the same directors managing purportedly unrelated entities)



Shareholding and common interests (the same people holding shares in purportedly unrelated entities)



Arrangements that would never feasibly take place between independent, unrelated parties



Financial statements that listed both companies as related parties.

This tax evasion, the IRC noted in its announcement, equated to circa USD 2.2 million and robbed Papua New Guinean citizens of much-needed infrastructure, security, health and education coverage, and other public goods and services, without which the country could not guarantee economic growth and social welfare.



6

THE VIEW FROM FINANCIAL INSTITUTIONS:

RESULTS FROM A SURVEY ASSESSING INDUSTRY AWARENESS AND ATTITUDES TOWARDS LAND CONVERSION AND ASSOCIATED PREDICATE CRIMES

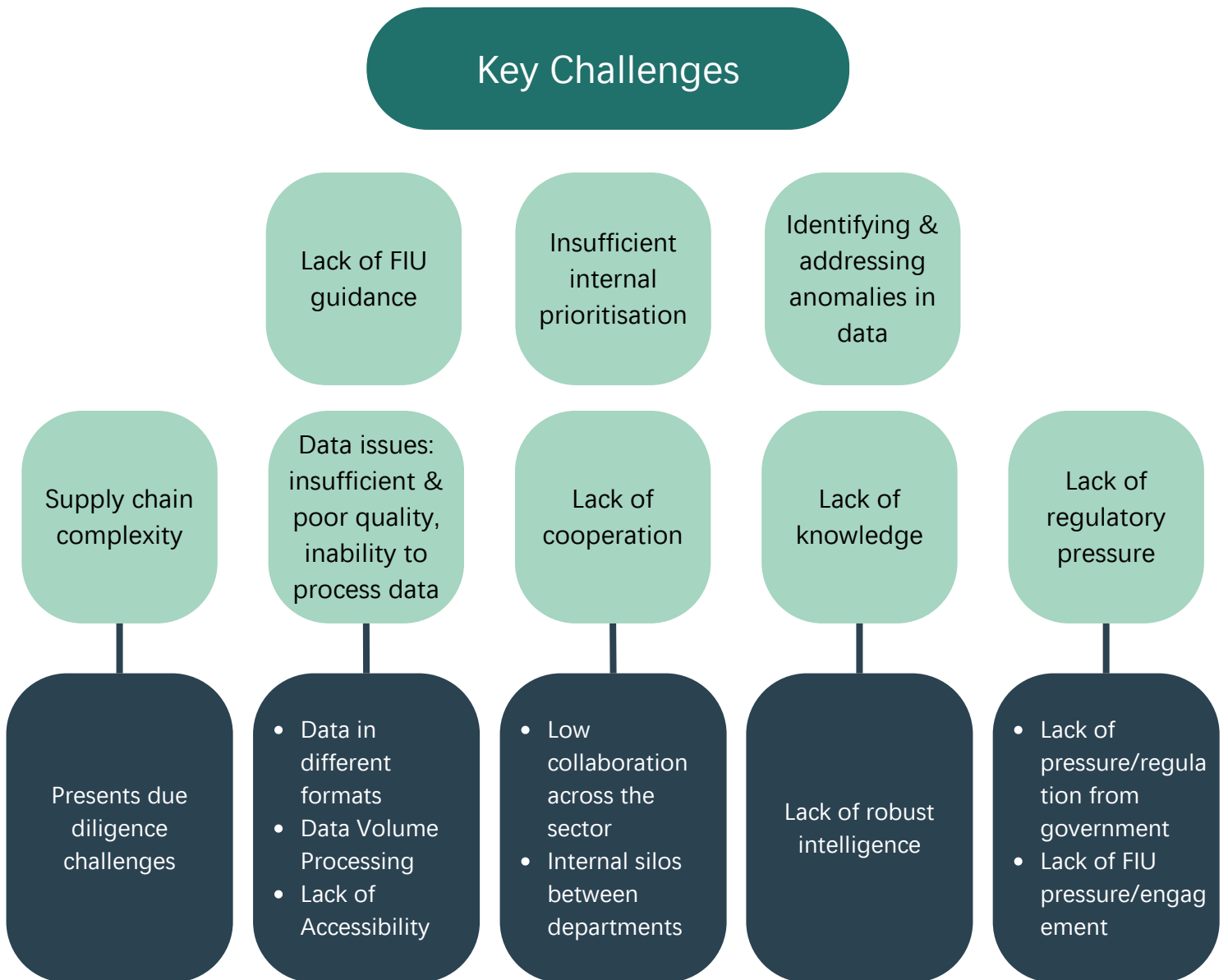
When it comes to issues like land conversion, the financial sector is increasingly looked to as a mechanism for leveraging positive change (and, as such, also held to account when it turns a blind eye). This focus on the financial system comes from its unique position, where various streams of illegality associated with land conversion intersect and can therefore be detected and disrupted, and power, in providing vital pecuniary support to projects and companies the world over. As such, the sector has a distinctive ability to hold businesses to account, and to undermine illegal and criminal operators.

For this report, 644 professionals from a combination of large and SME financial institutions in 17 countries* responded to a survey which sought to understand attitudes and approaches to managing land conversion risk across the industry. Analysis was complemented by focus group workshops and individual interviews with both risk and compliance experts and thematic experts in the fields of environmental and financial crime.

* Respondents to our survey work for financial institutions in:



FIG 9: KEY CHALLENGES TO TACKLING THE FINANCE SECTOR'S EXPOSURE TO LAND CONVERSION, AS PERCEIVED BY FOCUS GROUP PARTICIPANTS



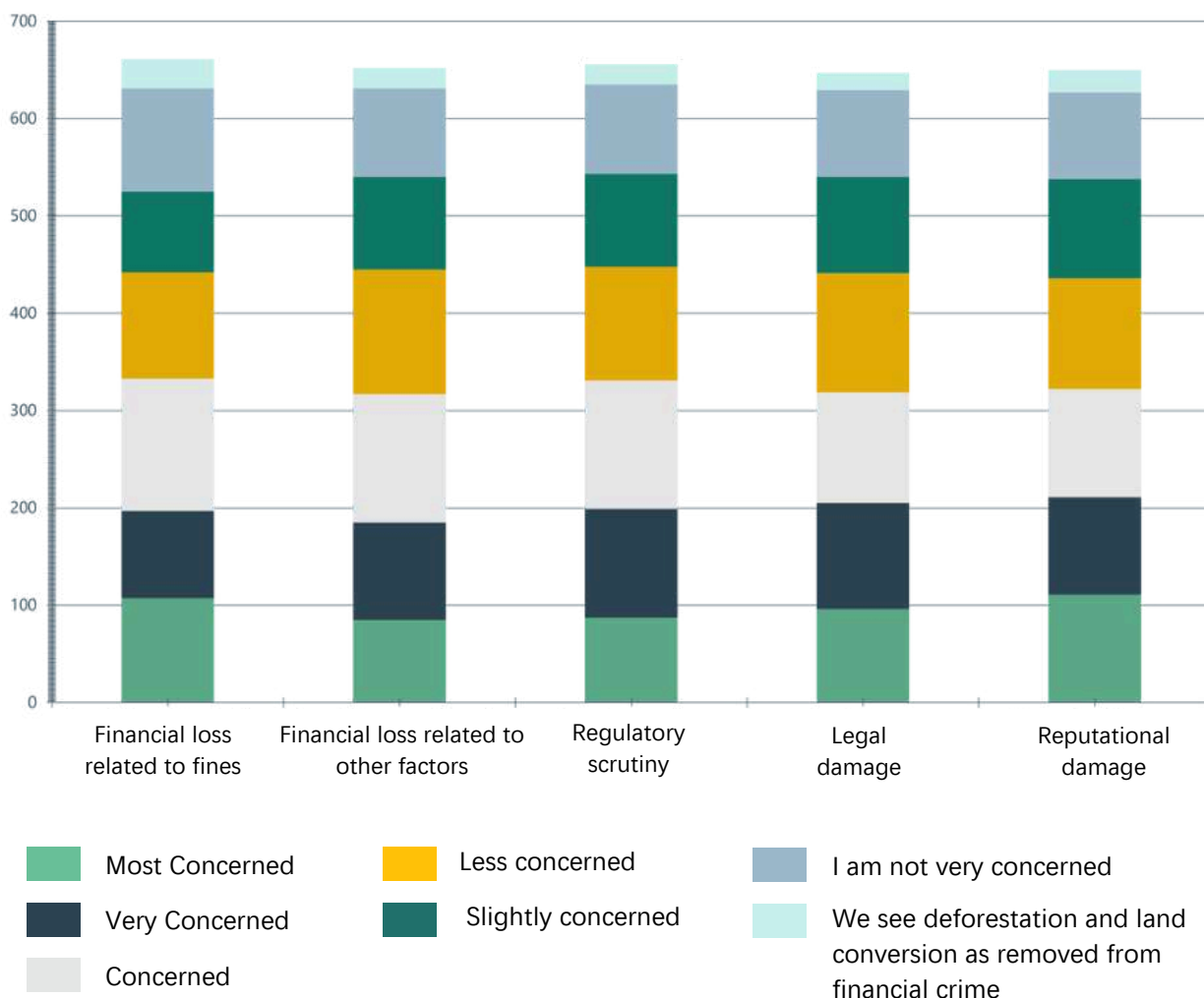
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6.1 Awareness, prioritisation and attitudes

6.1.1 A problem shared

Survey respondents appear to be roughly as concerned by the **potential reputational, regulatory, legal, and financial damage** that association with land conversion-linked financial crimes pose to them, as illustrated by the diagram below. In each category, a small number of respondents (between 2.8% and 4.5%) stated that they saw land conversion as “removed from financial crime”.

**FIG 10: PLEASE RATE YOUR ORGANISATION'S CONCERNS ABOUT FINANCIAL CRIMES TIED TO LAND CONVERSION
(PLEASE RANK IN ORDER OF IMPORTANCE)**



© Lizzie / Themis

This fairly equal distribution of responses suggests that a **concerted multi-pronged approach** both internally (with input from several different departments (including perspectives from compliance, as well as communications and PR)) and externally (with advice and initiatives from NGOs, as well as governments and advisory bodies) may be the most compelling and successful means of **engaging key decision-makers** within firms.

6.1.2 Legislation and regulation are key incentives

Data from the focus groups supports this, indicating that whilst firms are aware of reports by NGOs on the urgency of tackling land conversion and the role the financial sector has to play in that, as well as potential adverse media surrounding their own activities and those of their peers, this is **not sufficient incentive** alone for them **to fully commit to 'conversion-free finance'**. This was also the case for industry self-regulation, which focus group participants did not consider a sufficient driver of change when it comes to land conversion. Instead, many stated that, rightly or wrongly, it was optimistic to think that many financial institutions would commit to such strong affirmative action **without unambiguous regulation and legislation** that clarifies their responsibilities and liability in this regard. Whilst **voluntary frameworks** are an important component of a sectoral approach to conversion-free finance, they **are not a replacement for the rule of law**.

Legal and regulatory instruments help financial institutions to demand or justify the allocation of additional resources (including training, technology and additional staff) and the possible loss of certain clients from high-conversion-risk commodities that a shift to a conversion-free model may entail, as well as demonstrably exacerbating the potential impact on their organisation if they fail to adequately address it.

This need for a robust regulatory and legislative landscape when it comes to land conversion is echoed by the FATF, which expresses concern over the “**lack of proportionate government action**” currently taken by countries to detect and disrupt financial flows associated with environmental crime. The FATF has called on countries to review their risk exposure – particularly given that “the proceeds from environmental crimes are in the same order of magnitude as other financial crimes generating USD 110 to 281 billion per year”, and that forest crime, illegal land clearance and mining – alongside waste trafficking – account for 66% of this.

6.1.3 Adequate resourcing

Research participants also flagged land-conversion-specific **training** and **resources** that target financial institutions as necessary to help firms overcome recognised obstacles including insufficient **internal prioritisation, institutional will and funding**. As part of this, the importance of making training specific to different job roles and business activities was emphasised, so that it really considers and addresses specific challenges, concerns and viewpoints.

6.1.4 Risks and opportunities

During the focus groups, professionals underlined the value of illustrating the potential substantial value loss associated with land conversion for firms, to further encourage internal prioritisation of the issue. They stressed that for meaningful action to occur, it is necessary to demonstrate that land conversion is a **financially material risk**; without this, it will not be prioritised. It was suggested that this could involve providing a “**business case**” for financial institutions, framing the issue as **an opportunity to generate revenue** and - as much as is possible - attempts to quantify the risks posed to them by land conversion.



Sources of information and support

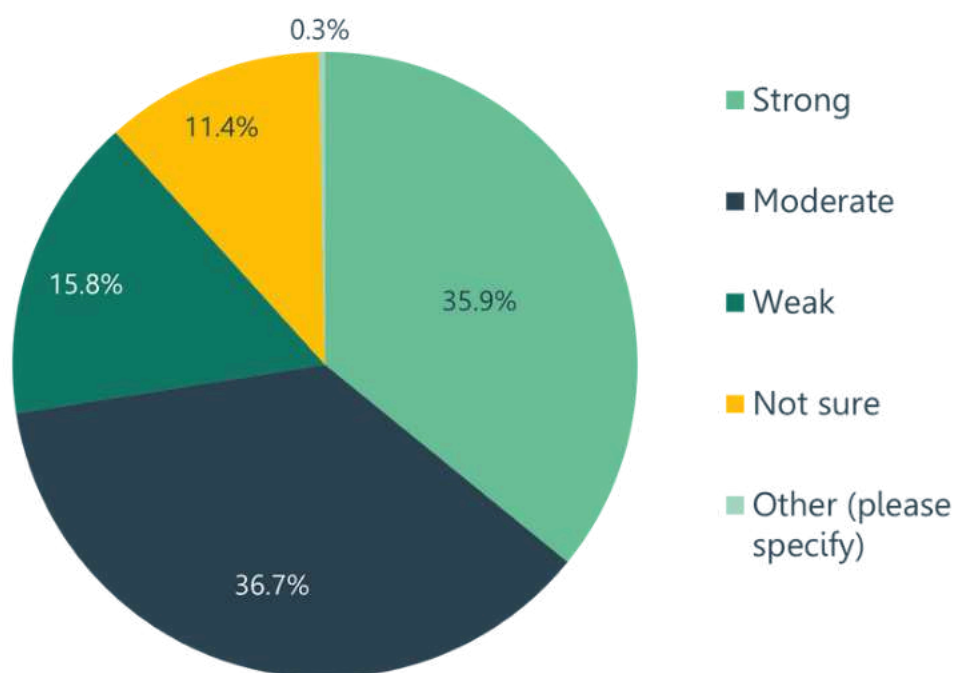
Respondents indicated that they had found reports (38.6%), public-private partnerships (32.7%) and international commitments (31.9%) to be the most useful initiatives and sources of information, support and motivation in relation to tackling similar issues (like the illegal wildlife trade and broader environmental risks).

6.1.5 Policies and controls

Over 60% of survey respondents said that a land conversion risk **policy** was either non-existent (45.7%) or not yet developed or in place (18.6%) in their firm. This is consistent with 2023 research conducted by the NGO Global Canopy, which found that three-quarters (536) of the financial institutions assessed still do not have a public deforestation policy, and only 10% (69) had a deforestation policy in place for the commodities at highest risk (cattle products, soy, palm oil, and timber products). Moreover, 27.2% of our respondents indicated that their organisation does not have any specific **due diligence** measures in place to identify potential financial crime linked to land conversion; and 19.9% of respondents stated that land conversion was covered in neither staff training nor in their organisation's governance framework. This is significant since almost half (49.5%) of respondents also answered that their organisation has clients or business associates in sectors or countries associated with higher levels of land conversion.

This data highlights gaps in institutional knowledge across the industry, as well as notable vulnerabilities in the global financial system when it comes to handling the proceeds of land conversion-related financial crimes, if almost half of financial institutions sampled are operating with or in high-risk sectors or areas yet over a quarter are not undertaking specific related due diligence.

FIG 11: HOW DO YOU RATE YOUR FIRM'S ORGANISATIONAL AWARENESS AND UNDERSTANDING OF FINANCIAL CRIME RISKS LINKED TO LAND CONVERSION?



6.1.6 Regional variation in awareness

Survey respondents from **Indonesia** and **Brazil** were amongst those reporting the **highest perceived levels of awareness and understanding** of financial crime risks associated with land conversion within their firms – perhaps given they are in high-risk regions for these issues. A significant number of respondents in Indonesia reported strong (50.0%) or moderate (41.7%) levels of awareness and understanding of financial risks associated with deforestation and other types of conversion.

Meanwhile, in **Brazil**, 84.7% of respondents reported strong (38.5%) or moderate (46.2%) levels of awareness and understanding. It is worth noting that this increased awareness and understanding amongst Brazilian finance professionals **correlates with an environment of increased self-regulation** on land conversion amongst financial institutions in the country. For example, 81% of financial institutions within the Brazilian credit market have already signed the 2023 agreement between the Brazilian Federation of Banks, requiring meatpackers and slaughterhouses seeking financing to implement environmental monitoring of suppliers who raise cattle in the Amazon.

This further highlights the **importance of a multi-faceted approach** to education, awareness building and incentivisation, as well as regulation in driving firms' understanding of the issue. It also raises a question around varying levels of awareness of the different ways in which land conversion might be financed by banks. For example, while the direct financing of agribusiness might be identified, initial public offerings (IPOs), listings and investment vehicles may not be considered in the same bracket; yet they, too, are enablers (see Appendix 2: Advice and guidance from international bodies).

FIG 12: DO YOU KNOW IF YOUR ORGANISATION CURRENTLY INCORPORATES DEFORESTATION AND LAND CONVERSION INTO ITS GOVERNANCE FRAMEWORK OR STAFF TRAINING? SELECT ALL THAT APPLY

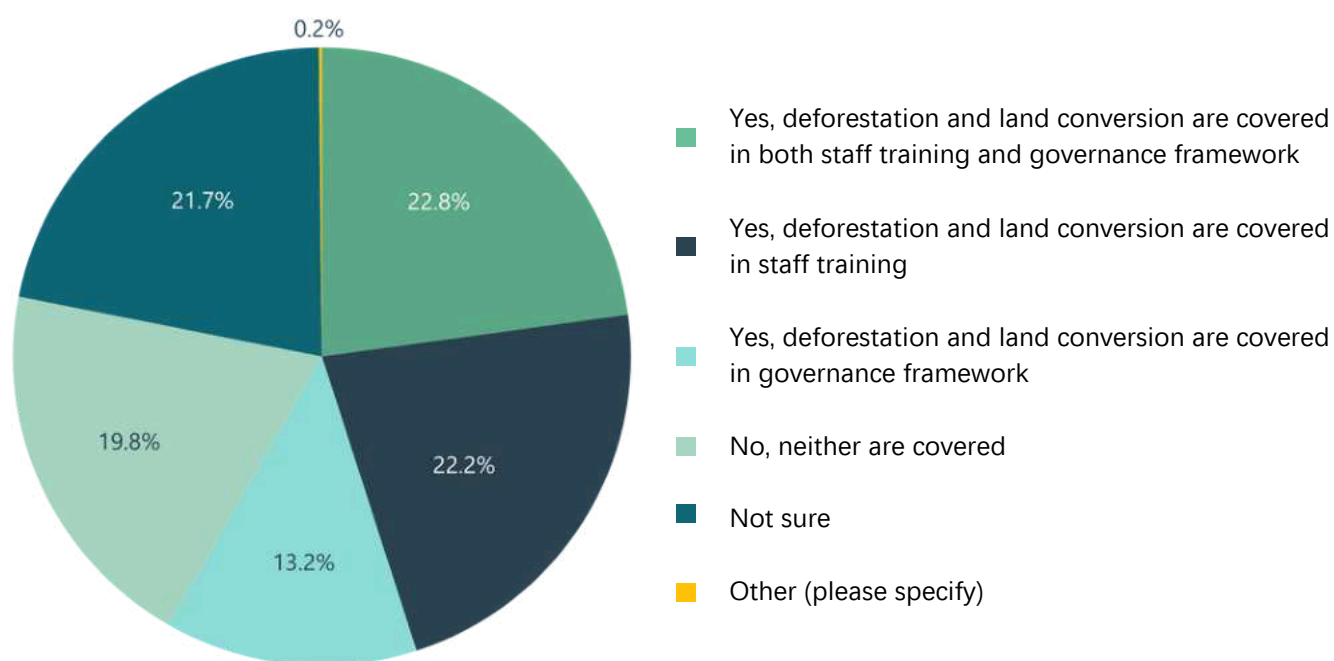
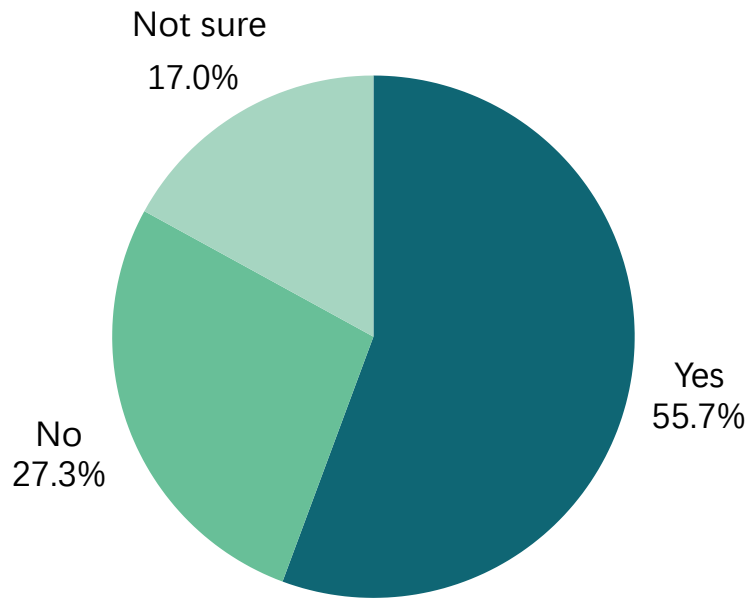
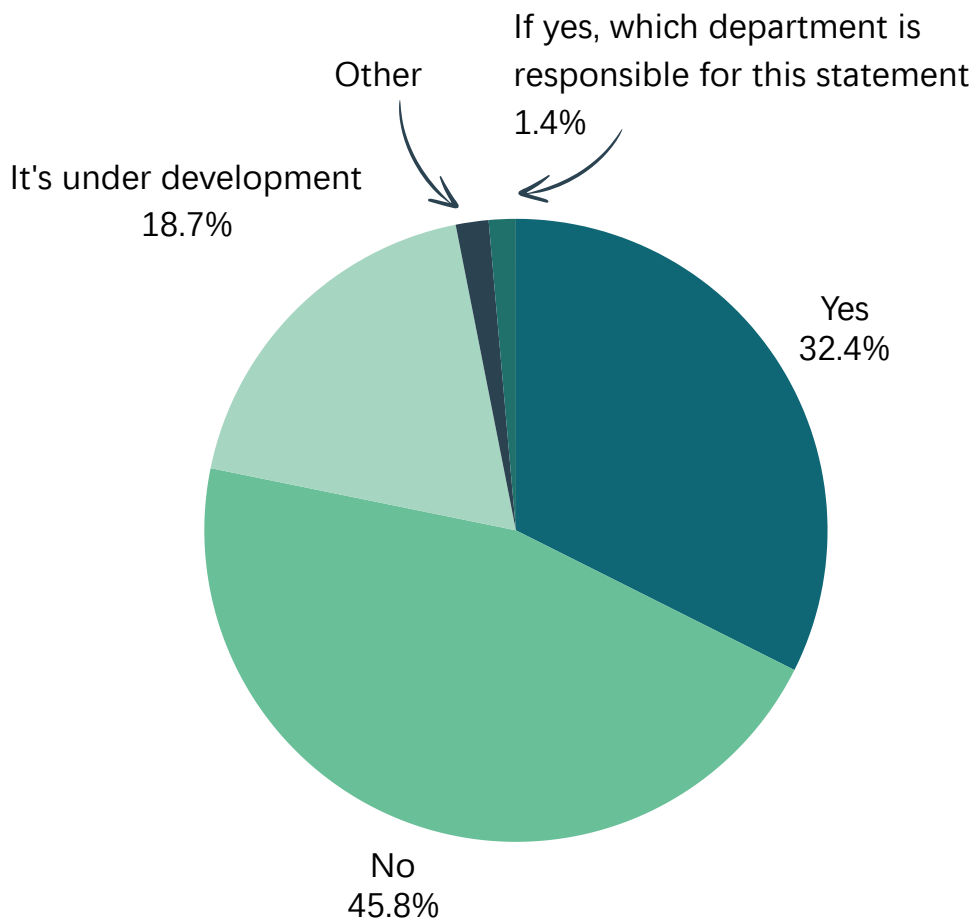


FIG 13: DOES YOUR ORGANISATION IMPLEMENT SPECIFIC DUE DILIGENCE MEASURES TO IDENTIFY POTENTIAL FINANCIAL CRIME LINKED TO DEFORESTATION AND LAND CONVERSION? SELECT ONE



© Aine / Themis

FIG 14: DOES YOUR ORGANISATION HAVE A DEFORESTATION AND LAND CONVERSION RISK POLICY? SELECT ONE



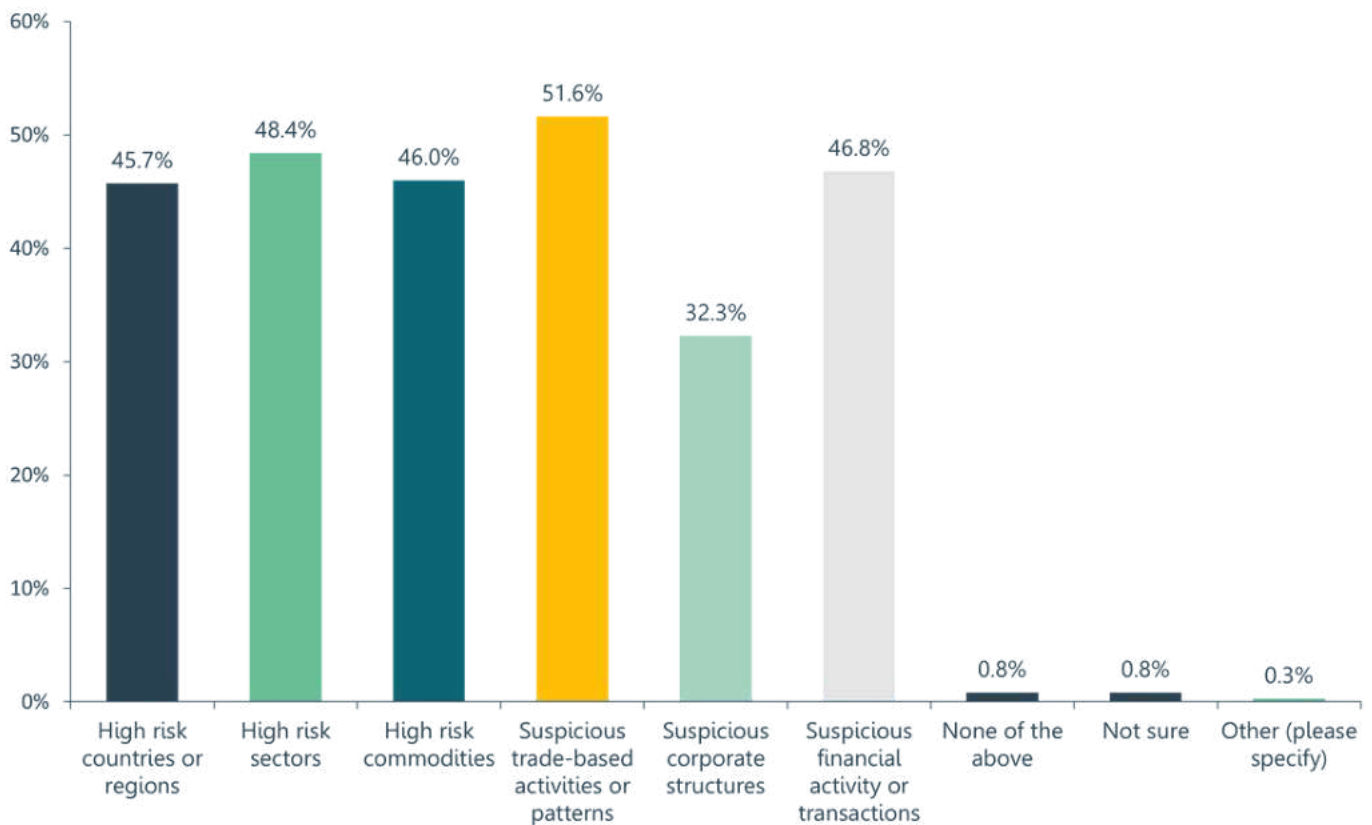
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6.2 Screening and identification measures

For those respondents who said that their organisation does have a specific set of due diligence measures in place to identify potential financial crime related to deforestation and other types of land conversion, **transaction monitoring** (58.9%), **identity verification** (56.6%) and **network screening** (50.7%) were the top three measures employed.

58.5% of respondents said that their organisation does use **red flag indicators** to identify potential financial crime linked specifically to land conversion, with a further 16.8% unsure whether they did. The top red flag indicators identified through the survey are outlined in the diagram below.

FIG 15: WHICH OF THE FOLLOWING RED FLAG INDICATORS ARE SCREENED FOR BY FINANCIAL INSTITUTIONS, SELECT ALL THAT APPLY



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Survey respondents indicated a **relatively equal distribution across red flags** screened for – although **relatively few** (16.5%) respondents stated that they **monitor or screen companies on a periodic or ongoing basis**, as opposed to in the early stages of a relationship, which indicates a **vulnerability across the sector**, especially a risk exposure to actors that only initiate illicit activity once they have been onboarded by a bank.

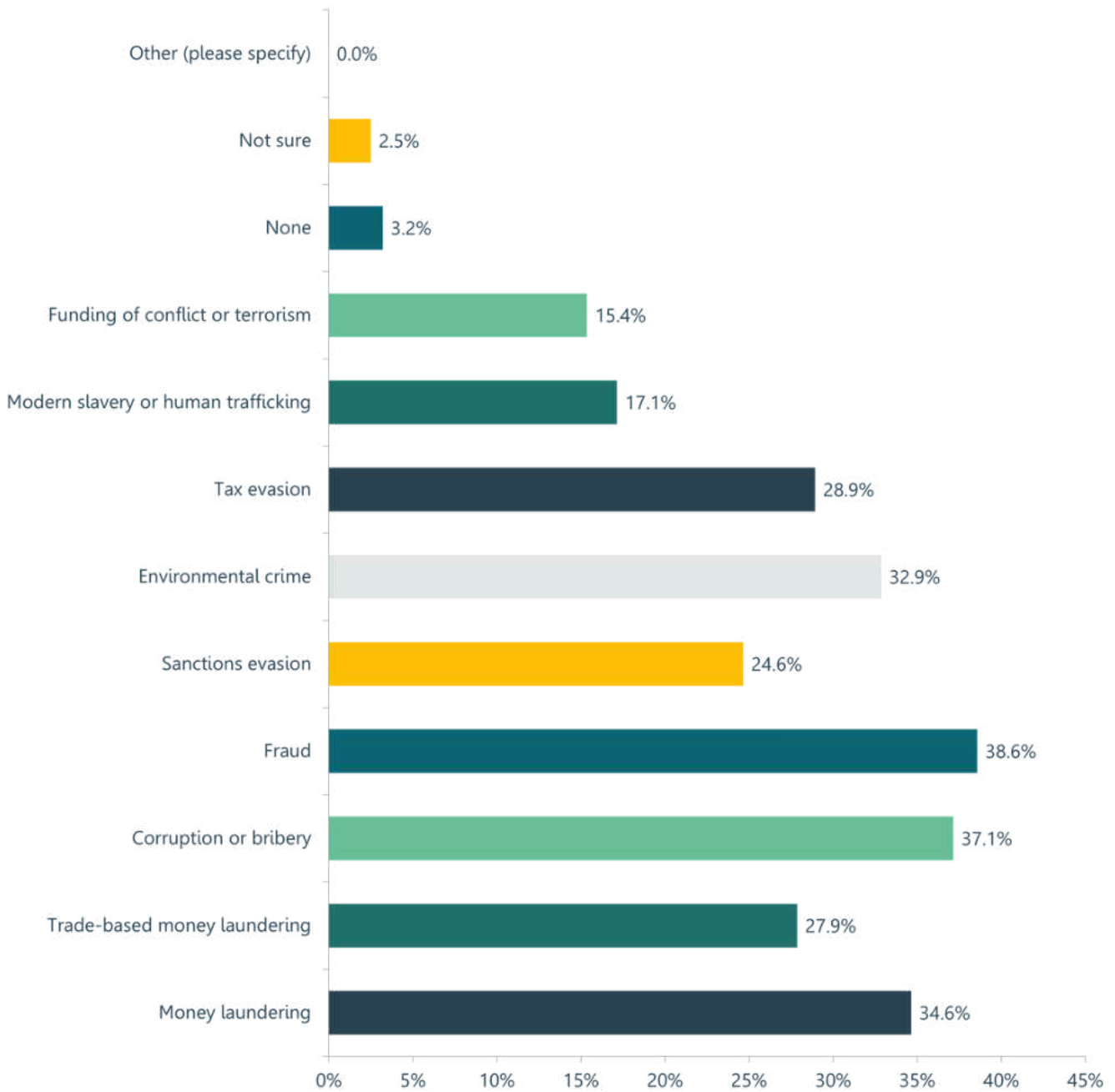
TABLE 2: RED FLAGS EMPLOYED BY SURVEY RESPONDENTS’ FIRMS AND CORRESPONDING STAGES OF DUE DILIGENCE

Specific red flags screened for during due diligence	Stages in the business relationship that red flags are screened
History of unethical environmental practices (48.5%)	Before a new transaction (50.4%)
History of illegal practices, convictions or regulatory fines (43.9%)	Before providing any financial services (49.0%)
History of supplying products from high-risk or sanctioned countries (43.3%)	Before an investment (45.8%)
History of unethical practices relating to human rights or the rights of local communities (43.0%)	Before a business relationship is established (41.7%)
History of corruption or bribery (39.2%)	Periodically (16.5%)
History of tax evasion (34.3%)	

6.2.1 Perceptions of related predicate crimes

Respondents ranked the top three perceived predicate crimes linked to land conversion as **fraud** (38.5%), **corruption and bribery** (37.1%) and **money laundering** (34.6% - but much higher when **trade-based money laundering** (27.9%) is included alongside). These findings are in line with desk-based research and the results of investigative journalism which indicate that fraud, corruption and bribery **widely facilitate land conversion** across the globe. Furthermore, it may be that financial crime professionals are better trained in and aware of these crimes as opposed to other predicate crimes like human trafficking, for example - which is a comparatively newer area of focus for many firms - or that their links to land clearing are more readily understood.

FIG 16: KEY PERCEIVED TYPOLOGIES OF POTENTIAL PREDICATE CRIME ACTIVITY LINKED TO LAND CONVERSION AS IDENTIFIED BY SURVEY RESPONDENTS

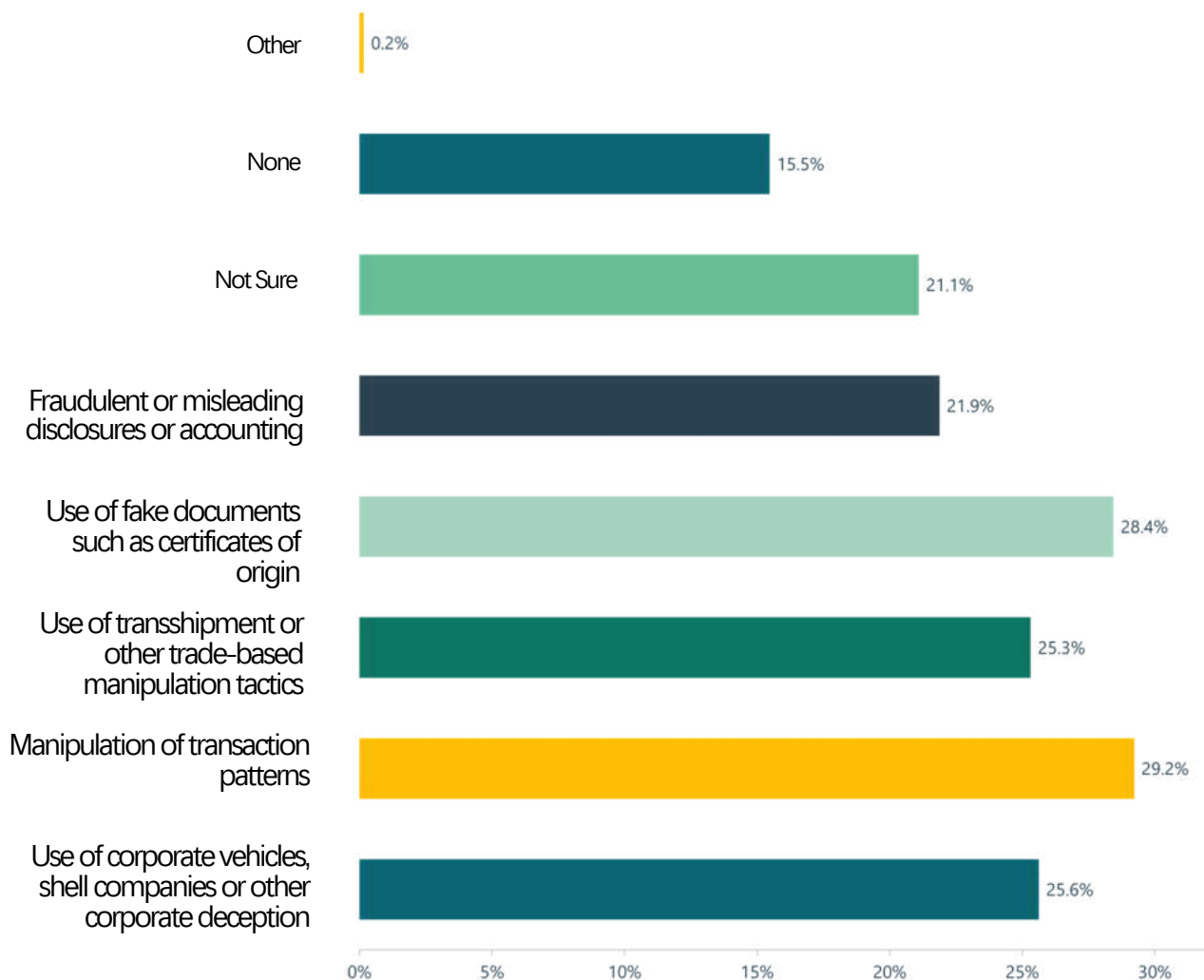


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6.2.2 Dealing with land conversion-linked financial crime

Between a fifth and a third of survey respondents also stated that their firms had **borne witness** to third parties attempting to hide financial crime or unethical business practices linked to land conversion via different tactics, as outlined below.

FIG 17: TACTICS OBSERVED BY ORGANISATIONS BY FORMER/POTENTIAL CLIENTS OR BUSINESS ASSOCIATES ATTEMPTING TO HIDE FINANCIAL CRIME OR UNETHICAL BUSINESS PRACTICES LINKED TO LAND CONVERSION, SELECT ALL THAT APPLY



© Lizzie / Themis

When asked if their organisation had ever **stopped doing business** with a client, investment, supplier or third party due to concerns over potential financial crime activity linked to land conversion, an encouraging 44.0% answered 'yes', whilst 36.4% answered 'no' and 19.6% answered 'not sure'. Since the survey gave the option – which many took – of answering questions anonymously, these responses are unlikely to have been distorted or misrepresented by respondents attempting to portray their firm in a favourable light by overexaggerating their reaction to concerns of land conversion related financial crime.

They are also encouraging in that they suggest that **emphasising the risk of exposure** to financial crime through land conversion activity may be a **key driver** in ultimately reducing the financing of this harmful activity, if nearly half of respondents have demonstrated a willingness to end relationships on the strength of such concerns.

6.3 Data issues: external and internal

6.3.1 Firms' automated screening systems

Issues with **data screening** raised during focus group discussions included the **quality, scope, and relevance** of data linked to land conversion and related predicate crime, and the impact this had on firms' ability to feed it into automated screening systems. Specific issues included **differences in naming conventions and spellings** across different regions and a lack of reliable or exact **date of birth data**, which hampered firms' efforts to narrow down matches for relevant or suspicious individuals.

Many focus group participants believed that there is, generally, sufficient data available but that the difficulty comes in sifting through this and knowing what intelligence to use or privilege over others, as well as how to navigate the onerous issue of **multiple false positive matches** when screening names.

6.3.2 Peer-to-peer data sharing

Participants in the focus groups also highlighted the lack of adequate gateways or platforms for peer-to-peer information sharing between financial institutions, which precludes firms from gaining a comprehensive understanding of evolving predicate crime typologies. Information sharing would facilitate efforts to build understanding, but participants were keenly aware of **General Data Protection Regulation** (GDPR)-related constraints over sharing personal data on suspicious individuals as an ongoing blocker.

6.3.3 Personal data and data protection laws

A key concern from focus group participants centred around **different jurisdictional laws governing personal data** and how this can be an impediment to accessing relevant and accurate information. There was a common consensus among focus group participants that governments across the globe should make reliable data **publicly available and accessible**. It was further noted that access to **pre-conviction data** for related offences would be an extremely valuable resource when it comes to due diligence screening, since many criminals operating in this space have not yet and may not ever be charged. This is especially the case when **corruption and bribery** intersect with land conversion, since perpetrators with the requisite resource, clout or convincing threats of violence may very well extricate themselves from charges pre-conviction. This is well-illustrated by the case study of [Luis Valdez Villacorta](#), who was arrested on drug trafficking charges without conviction, allowing him to become the mayor of the Coronel Portillo province in Peru which enabled him to leverage his power and influence to undertake an extensive range of alleged criminal activities, including timber laundering, drug trafficking and ordering the assassination of a journalist. The case also highlights risks around the backlog of organised crime investigations in many countries, as their complexity means they can take years to prosecute - and therefore years for related data to become publicly available.

Although participants all agreed that such data would make a substantial difference to their screening processes, they also acknowledged that this is very unlikely to ever materialise as it would require a **radical overhaul of data protection** and legal processes across numerous countries.

Focus groups participants also referenced the 2023 European Court of Justice ruling which overturned public access to EU countries' **beneficial ownership registries** under the EU's AMLD. Indeed, since June 2023, Austria, Ireland, Germany, Belgium, Greece, Malta, and the Netherlands have all closed public access to their beneficial ownership registers. The Netherlands is perhaps a particular concern in this context, as survey respondents cited the **Port of Rotterdam** – a hub for agricultural commodities – as a high-risk transit hub for products derived from land conversion (as of 2023, the country was the EU's biggest importer of high-risk deforestation commodities from non-EU countries, including soy, palm oil, cocoa, wood, and beef). Participants' concerns were aligned with those of anti-corruption groups such as Transparency International and OCCRP, who have publicly stated that the ruling is a step backwards in terms of exposing corruption and other predicate crimes and preventing illicit financial flows.

6.3.4 Data silos

During discussion, focus group participants also pointed to both the external and internal **"data silos"**, that exist between different law enforcement, civil society, FIUs, and financial entities **within and across continents** and **between departments within firms**, respectively. Access to data is a powerful tool in the fight against land conversion and blocks on related intelligence can really impede efforts by banks to monitor and address their exposure but can be subject to complex political or geopolitical factors. For example, when former Brazilian president Jair Bolsonaro came to power in 2019, his government restricted public access to ranch and cattle records throughout much of the Amazon, robbing a wide range of actors of this vital source of data relating to land conversion activity – and rates of land-clearing vastly increased during his time in office (by 75.5% in the Brazilian Amazon compared to the previous decade, for example).

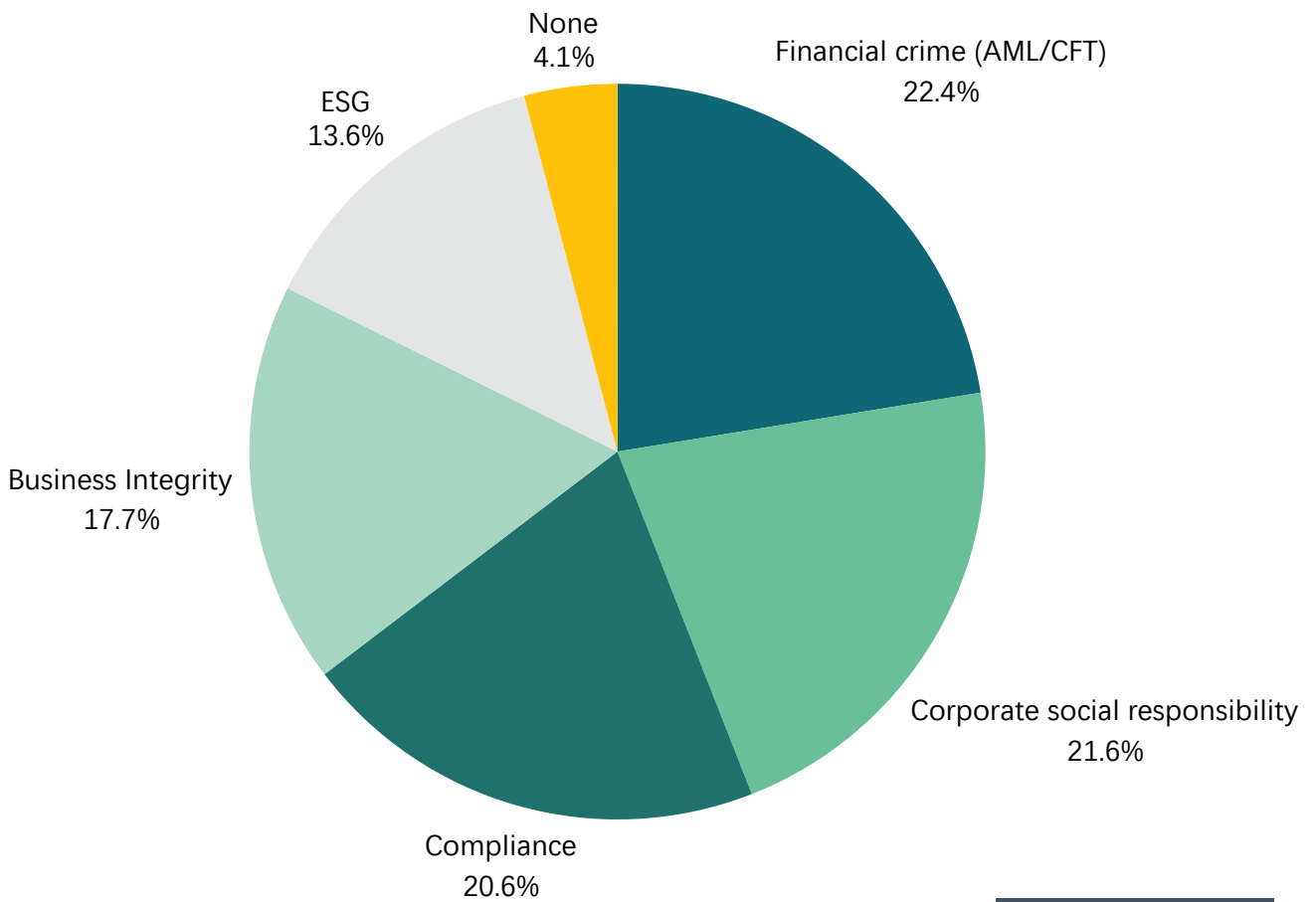
Challenges with data flows external to firms, which inhibit their access to robust and timely land conversion data, will be considered and explored in greater detail in the toolkit, as a key concern and blocker to the financial sector.

Turning to **internal data silos**, many finance professionals consulted noted that, as well as concerns around external data, there are common and shared challenges around internal data sharing within organisations. Specifically, they emphasised that there needs to be an improved **feedback loop** between financial institutions' **ESG and financial crime departments** since these functions often utilise data that would benefit the other.

6.3.5 Departmental responsibility for land conversion risk

Additionally, survey respondents displayed a relatively even distribution in response to the question of where **responsibility for land conversion risks sit within their organisation** – demonstrating a **lack of consensus** across the sector on how to frame and handle the issue. This may well **exacerbate challenges in data collaboration** both externally (between firms, for example in role-based working groups, if those roles responsible are not consistent across the sector) and internally between departments and functions, which may be coming at the issue from different perspectives and disagree on who is 'leading' a firm's response to it. Although firms indicated that they were equally as concerned about the financial, reputational, legal, and regulatory risks that land conversion-related predicate crimes posed to them, this even distribution of engagement with the issue across departments should also be complemented by strong internal data sharing principles and processes in order for it to be leveraged in a meaningful way.

FIG 18: WHICH DEPARTMENT DOES RESPONSIBILITY FOR RISKS AND ISSUES AROUND LAND CONVERSION SIT IN WITHIN YOUR ORGANISATION ?



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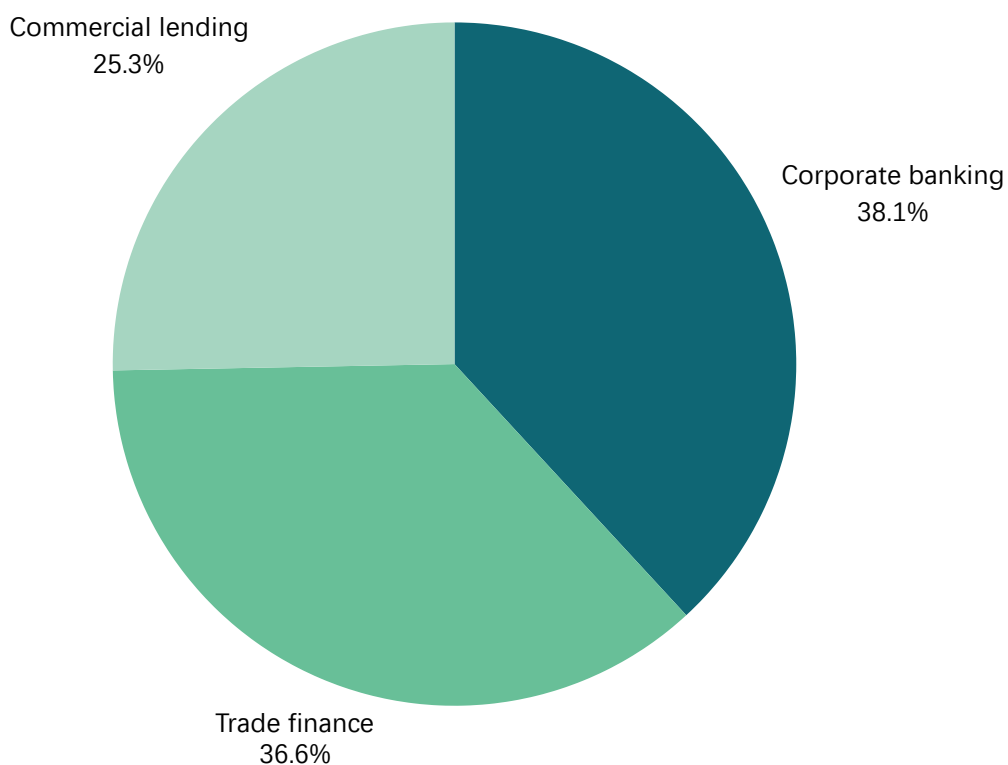
6.3.6 Key areas of risk

Survey respondents felt that their land conversion risk was **not limited to one financial service or product**, with corporate banking (29.1%), trade finance (27.9%) and commercial lending (19.3%) highlighted as particular concerns.



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FIG 19: KEY AREAS OF VULNERABILITY, AS PERCEIVED BY SURVEY RESPONDENTS



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Survey respondents perceived several regions as particularly high-risk for land conversion. These include key **rainforest-rich countries** across **South and Central America, Sub-Saharan Africa and Southeast Asia**.



TABLE 3: HIGH-RISK AREAS ACCORDING TO SURVEY RESPONDENTS: REGIONS OF FOCUS IN RELATION TO LAND CONVERSION



Africa	Asia	Europe	South America
<p>Congo region:</p> <ul style="list-style-type: none"> • Cameroon • The Central African Republic • The Democratic Republic of Congo • Equatorial Guinea • The Republic of Congo • Gabon 	China	Belgium	Argentina
Kenya	Indonesia	Highlands of Scotland	Bolivia
Nigeria	Malaysia	Russia (mid-east)	Brazil
	Thailand	The Netherlands	Colombia
	Vietnam	Ukraine	
		The UK	

TABLE 4: EXAMPLE SECTORS AT HIGHER RISK OF EXPOSURE TO LAND CONVERSION, AS PERCEIVED BY SURVEY RESPONDENTS

Sectors	Relevant Countries/Regions
<p>Oil and gas.</p> <p>Timber exported from the Black Forest.</p>	<p>Middle East</p> <ul style="list-style-type: none"> • Afghanistan • Iraq • Yemen • Iran • The UAE
<p>Paper mill companies (concern over manufacture of products from lumber derived from heavily deforested areas in the Southeast and along the Gulf Coast).</p>	<p>Asia</p> <ul style="list-style-type: none"> • Borneo • China • Indonesia • Myanmar • Singapore • Cambodia • India • Malaysia • Nepal • Vietnam
<p>Private sector construction (especially in Malaysia).</p> <p>Agricultural commodities (predominantly soy and palm).</p>	<p>Asia</p> <ul style="list-style-type: none"> • Malaysia • Myanmar • Singapore • Nepal • Vietnam
<ul style="list-style-type: none"> • Furniture-making industry • Match-making industry • Agricultural sector • Cocoa industry 	<p>Africa</p> <ul style="list-style-type: none"> • Angola • Gabon • Niger • Rwanda • South Africa • Equatorial Guinea • Cameroon • Ghana • Nigeria • Somalia • The Congo Region
<p>State-owned economic and commercial industries (particularly operating in Brazil).</p> <p>Petroleum sector (in Brazil).</p> <p>Hard and soft commodities including palm, sugar, soy, grains, wood, and copper (especially from Chile, Argentina, and Brazil).</p>	<p>South and Central America</p> <ul style="list-style-type: none"> • Bolivia • Colombia • Haiti • Paraguay • Chile • Ecuador • Mexico • Venezuela

TABLE 5: HIGH- RISK TRADE ROUTES, AS PERCEIVED BY SURVEY RESPONDENTS

Trade Routes	Possible Explanation
From Amazon to China	China is a <u>major importer</u> of cattle products and soybeans from the Amazon rainforest.
Southeast Asian rainforests to China	China is the biggest destination for <u>Indonesian dissolving wood pulp (DWP)</u> exports. In the context of the EUDR, Malaysia has stated an aim of increasing exports of palm oil to China.
From Africa to Middle East	The trade in charcoal is a key risk for deforestation along this route, especially from East Africa. Other key commodity risks along this trade route, <u>include</u> cocoa, coffee, palm oil, rubber and tea.
Trade routes that cross the Asia Pacific region	The geography of Asia-Pacific includes some of the most critical tropical jungles and biodiversity areas in the world. With the region’s rapid population and economic growth, there is increased risk of <u>exploitation</u> of timber and other forest products.
From <u>South America to North America</u> , particularly through and along the Texas Gulf coast	The US and Canada are high-risk destination countries for imports linked to land conversion. Examples of commodities include <u>beef</u> , <u>palm oil</u> , <u>wood pulp</u> and <u>sugarcane</u> from Brazil; <u>coffee</u> from <u>Colombia</u> and <u>Peru</u> ; and cocoa from <u>Ecuador</u> , <u>Colombia</u> and <u>Peru</u> .
Trade routes that traverse forest areas or national parks	Trade routes that go through or originate in or near forest areas and national parks are high-risk for the movement of illegal timber or other deforestation-linked commodities. For example, the <u>illegal logging network</u> that operates in Cambodia’s Virachey National Park transiting timber between Park and to Sihanoukville port, where it is shipped to Hong Kong.

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Trade Routes	Possible Explanation
Trade routes that pass through the Congo-Nile region	<u>Timber supplies often originate and transit through countries in the Congo-Nile region.</u> Logging often takes place in the forests of the eastern Democratic Republic of the Congo, and transits to Uganda through the Mpondwe Border Post; through Kenya by road through the Busia Border Post; to international markets through Mombasa Port; and to Tanzania by road through the border crossing at Mutukula.
The Trans-Amazonian highway	Bisecting the Amazon rainforest, this <u>2,000-mile highway</u> provides easy access to and from the forest's timber and mineral resources.
The Trans-Sahara Highway	A vital north-south trade route, playing a crucial role in the movement of agricultural goods, leaving it vulnerable to misuse for moving illicitly sourced commodities.
Routes through the Changbai mountain area (traversing Northeast China and North Korea)	Mountainous regions across highland Asia are <u>known</u> to provide cover for illegal trade and trafficking routes.
Routes along and across the Yunnan border (which borders China, Laos, Myanmar, and Vietnam)	There has been growing <u>concern</u> in recent years over increasing levels of timber flowing cross-border into China, with estimates that hundreds of millions of dollars of illegal timber leave Myanmar for China each year. This is exacerbated by new investment in infrastructure in Myanmar by Chinese companies.
Any trade routes originating in South America	<u>South America</u> , home to vast swathes of vegetation, is one of the world's highest-risk source regions for land conversion-commodities.
Trade routes destined for the Netherlands	As of 2023, the Netherlands was the <u>EU's largest importer</u> of products with a high risk of deforestation from non-EU countries, including soy, palm oil, cocoa, wood, and beef.
<u>Hebei province</u> in China	A region with varied geography, containing mountains, shorelines, plains and lakes and bordering the Bohai Sea to the east, which may provide wide opportunities for transporting goods via a range of routes and means. Hebei province is a <u>key hub</u> for the processing and manufacturing of timber products.

TABLE 6: HIGH- RISK PORTS, AS PERCEIVED BY SURVEY RESPONDENTS

Port	Commodities commonly transiting through port
The Netherlands: <u>Port of Rotterdam</u>	Agricultural commodities, including those at high risk of association with land conversion, like <u>soy</u> and palm oil
Panama Canal	<u>Cocobolo logs</u>
<u>Ecuador</u>	Sandalwood, wood panels, <u>fibre, bamboo, latex, gum, palm products</u>
Nigerian <u>ports</u> : Tin Can Island, Lagos, Calabar, Delta, Port Harcourt, Onne Port	<u>Cattle</u> (beef and leather), <u>cocoa, wood products, cashews, palm oil, sesame</u>
Paraguay (e.g., Paraná River ports)	<u>Soy</u>
The Democratic Republic of the Congo: Banana Port, Port of Kinkole	<u>Timber logs</u>
Croatia: Port of Rijeka	<u>Timber products</u>

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Overlap between source and transit countries

It is important for financial institutions to be aware that there is often an overlap between source and transit countries for high-risk commodities. Uganda, for instance, is not only a key source country but also a crucial transit market; about 80% of the illegal timber from the Democratic Republic of the Congo is transported through Uganda to other markets in East Africa, including South Sudan.

Key destination countries and markets are likely to shift as increased regulation and legislation linked to land conversion prohibits the import of such commodities into the EU and source countries inevitably seek new markets - for example, in Africa, Asia and Australasia.

Risk Area

6.3.7 Complexity of supply chains and trade routes

Data collected from focus groups highlighted that commodities associated with land conversion often involve complex supply chains, which pose significant challenges to conducting effective due diligence due to the numerous actors and stakeholders involved. Participants noted that this complexity is heightened since all countries involved in the supply chain (**source, transit, and destination**) require analysis.

Participants proposed that comprehensive mapping of all supply chain participants may be necessary to understand the issues of land conversion, alongside associated risks. They also emphasised that financial institutions should be encouraged to speak directly with customers and the different actors and stakeholders throughout the supply chain to better understand land conversion and associated risks (for example, initiating conversations with paper mill clients to better understand how illegal wood enters supply chains). This presents an opportunity for enhanced collaboration between financial institutions and experts on the ground, as well as with local and national government bodies – and may also help to address the challenges with external data flows already highlighted.



7

CONCLUSION

Given the very varied threat of convergence with predicate crimes, financial institutions should consider land conversion to pose as serious a threat as many of the other risks they screen for. This is even more important when considering the reputational risk to firms in the context of growing scrutiny from civil society, investors and the public, and attention to social and environmental justice. As governments and regulators increasingly seek to legislate and regulate against land conversion, financial institutions have a key role to play and an opportunity to use their expertise and unique access to data to aid law enforcement and to protect themselves - and local communities - from risks when it comes to associated and converging predicate crimes.

Restrictions on data sharing and access were highlighted as an issue across the research. However, encouragingly, many of the firms consulted were willing both to share their own experiences and examples of best practice in addressing land conversion and to understand more about the issue and its associated challenges; how it impacts their own business and what they can do to help tackle this very global concern.

This toolkit is designed to support financial institutions, by providing details of evolving red flags, reporting guidance and regulation, as well as sharing best practice examples of the dedication and hard work that is continually undertaken by organisations and individuals investigating and challenging land conversion issues. Unfortunately, criminals are constantly innovating and evolving their typologies in response to tightening law enforcement, so information sharing is more vital than ever if we are to crackdown, together, on these individuals and enterprises.

WWF and Themis hope that this report and initial toolkit will provide a useful resource for financial institutions; one that helps to drive a whole system response to detecting and disrupting land conversion related crimes.



A

APPENDIX 1: THE VIEW FROM THE REGULATORS

GLOBAL LEGISLATION AND REGULATION IMPACTING FINANCIAL INSTITUTIONS

Traditionally, environmental crime has been treated as a conservation issue - and one predominantly tackled by non-governmental organisations (NGOs). However, regulatory and legal frameworks tend to follow civil society opinion, which is becoming increasingly concerned with – and vocal about – climate, nature, endangered species conservation, human rights, and environmental and social justice.

Indeed, issues around land conversion were, until recently, viewed by the private sector as primarily reputational in manner, with financial institutions and companies looking to avoid adverse media, protests or boycotts over links to deforestation. In recent years, however, governments have increasingly looked to enshrine financial institutions with the responsibility for addressing how their business practices may fuel land conversion, enacting new laws around environmental and predicate crime that take the private sector's role into fuller consideration.



THE EUROPEAN UNION

The European Union Deforestation Regulation (EUDR)

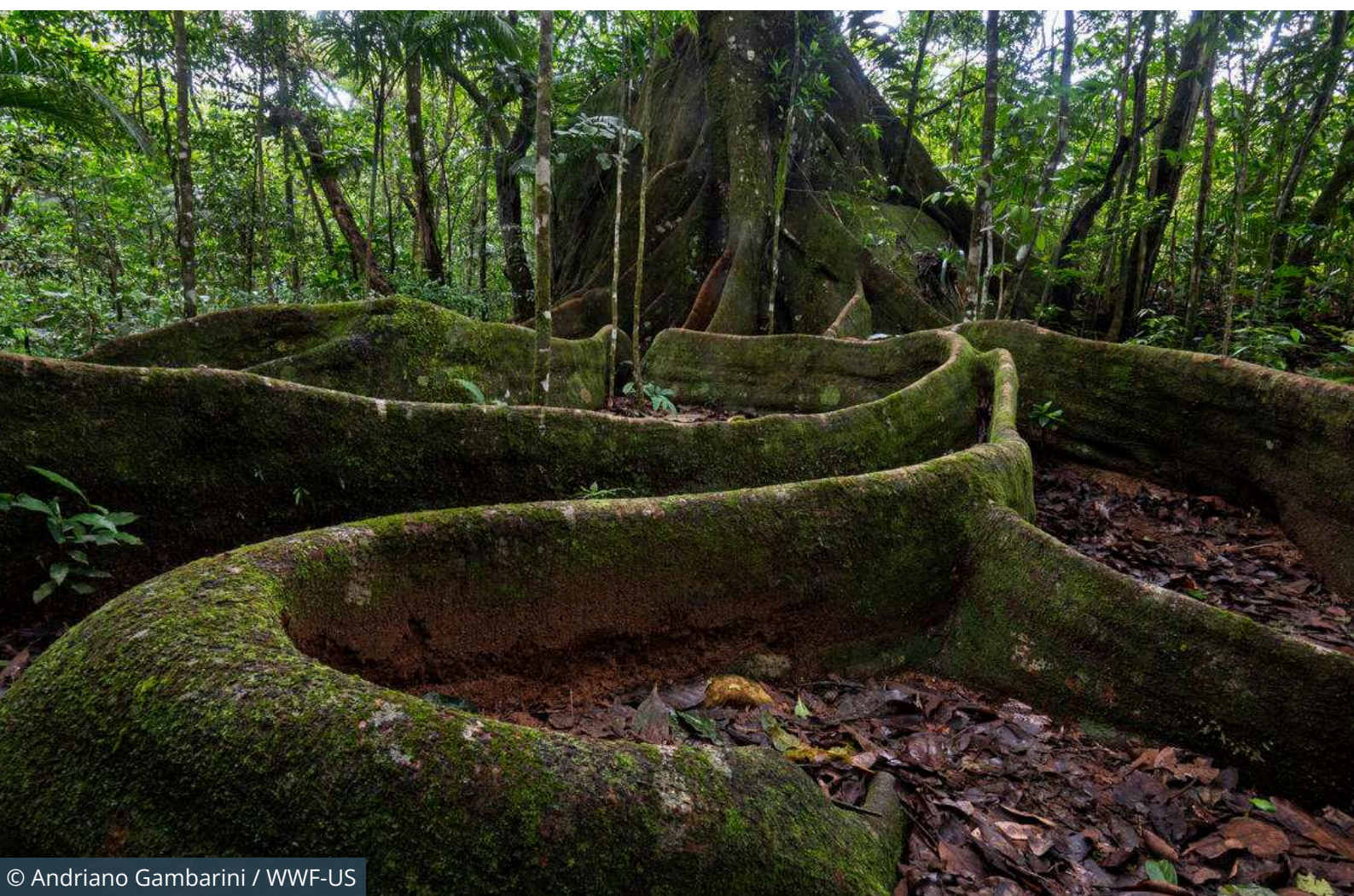
The EUDR, a landmark ruling which came into force in June 2023, requires mandatory due diligence in and on EU supply chains to ensure products sold in the EU have not led to deforestation or forest degradation. While no country or commodity will be banned, companies will only be allowed to sell products in the EU if the supplier of the product has issued a so-called “due diligence statement” confirming that the product does not come from deforested land.

The EUDR set an 18-month transition period for operators or traders of high-risk commodities – covering cattle, soy, timber, palm oil, rubber, cocoa, and coffee, as well as derived commodities (such as fuel wood, tyres, leather, and glycerol) – before they must be able to prove that the products in question have not contributed to forest degradation or originated from deforested land. The regulation is notable in that it targets both illegal and legal land conversion, holding companies liable for associated practices that take place along their supply chains. The maximum fine for non-compliance must be at least 4% of the total annual turnover in the EU of the non-compliant operator or trader.

However, the EUDR **does not** cover the protection of wooded lands, grasslands and wetlands. This puts at risk important South American biological hotspots which fall under these categories, such as the Brazilian Cerrado (a savannah region) and Gran Chaco (the continent's second largest forest and a semi-arid lowland spanning areas of Argentina, Brazil, Bolivia, and Paraguay). Indeed, as already mentioned, since policies have been implemented to protect the Amazon, these areas have been identified as the “new deforestation frontiers”, with the Cerrado seeing its highest rate of deforestation in 2023 since 2018 and Gran Chaco suffering deforestation at a rate equivalent to a 20% loss of native vegetation over 15 years. Additionally, key commodities associated with deforestation and associated human rights abuses, such as sugar and poultry, are not included within the EUDR's scope.

As it currently stands, financial institutions are not in scope of the EUDR. However, a new proposal - expected to be reviewed in 2025 - has been put forward by the European Parliament to include financial institutions headquartered or operating within the EU within the regulation.

If adopted, this proposal would require financial institutions - encompassing all activities related to banking and investment - to undertake and demonstrate adequate due diligence, risk assessment and mitigation prior to providing financial services to customers whose economic activities involve trading or placing relevant commodities and products on the EU market. They will need to satisfy themselves that there is no more than a negligible risk that the financial services they provide “support directly or indirectly activities leading to deforestation, forest degradation or forest conversion.”



EUDR RISK: PREPAREDNESS

Analysis by [Forest 500](#) suggests that many of the global commodity firms rushing to comply with the EUDR are still significantly unprepared for compliance, with traceability and due diligence requirements lacking across the board. Financial institutions should actively prepare in advance to avoid similar regulatory non-compliance risks, in the event that the proposal to include financial institutions within the scope of the EUDR is adopted in 2025.

IN FOCUS:

EU-MERCOSUR TRADE AGREEMENT (EMTA)



The EU and Mercosur nations - including Argentina, Brazil, Paraguay, and Uruguay - are nearing the final stages of a free trade agreement that would eliminate 93% of tariffs for Mercosur products to the EU and offer preferential treatment for the remaining 7%. Following years of negotiations that began in 2000, and both parties apparently eager to reach a deal by the end of 2023, talks have stalled and, at the time of writing, there is no clear target or deadline on signing the EMTA.

With agribusiness in Mercosur nations being a key driver of deforestation, supporters of the trade agreement are placing heavy reliance on the EUDR to mitigate potential negative impacts of the trade agreement - including European companies' increased exposure to deforestation and land degradation through commodity chains. Nevertheless, as mentioned, there are limitations of the EUDR's scope that pose substantial risks from an environmental perspective.

The EMTA exposes the financial sector to greater risk of financing deforestation and conversion, given that it incentivises and facilitates investment and operational expansion in this high-risk region and that the EUDR does not presently cover (and therefore protect) the financial sector.

The Corporate Sustainability Due Diligence Directive (CSDDD)

Aiming to close legislative gaps around accountability for large companies operating in the EU, the CSDDD obliges such companies to identify and address adverse human rights and environmental impacts within their value chains, working to mitigate potential impacts and prevent abuses. This encompasses concerns over child or slave labour, worker exploitation, pollution, loss of biodiversity, and environmental degradation – all of which commonly converge with land conversion – and applies not only to a company's own operations but also to the actions of its subsidiaries or any other entities in its supply chain. Financial institutions were previously out of scope but in 2023 the European Parliament adopted proposals to cover them, as well as to link a “significant portion” of directors' pay to companies' corporate environmental and social due diligence. The CSDDD is currently adopted as a negotiating text and is likely to be officially adopted in 2024. However, firms are advised to plan ahead and understand in advance how they will obtain the data necessary to satisfy the new reporting and extensive due diligence requirements.



Financiers will need to prepare for eventually being included in EUDR and EU CSDDD, with civil society increasing the pressure on them. They could face financial risks if they default on implementation and compliance efforts.

CHAIN REACTION RESEARCH, 2023



CASE STUDY:

BANKS TARGETED FOR LAUNDERING THE PROCEEDS OF ILLEGAL DEFORESTATION

In November 2023, international NGO Sherpa filed a [complaint](#) with the French National Prosecutor's Office in collaboration with Harvest, Center for Climate Crime Analysis, Repórter Brasil, and Transparency International. The complaint targets four major French banks and is the first criminal complaint against banks in the country based on receiving stolen goods and laundering the profits of illegal deforestation. The case concerns the banks' financial support for leading cattle companies in Brazil, particularly JBS and Marfrig, which have been implicated in illegal deforestation practices in the Amazon. The banks in question collectively invested USD 70 million between 2013 and 2021 in these cattle companies - which profited them to the tune of around USD 11.73 million - despite numerous investigations over the same period revealing environmental and human rights abuses in the sourcing of cattle. This complaint alleges that, by holding bonds issued by companies that are profiting from illegal deforestation and related financial and environmental crimes, these banks are helping to reintroduce the proceeds of these offences into the legal circuit – money laundering – since bonds are repaid with proceeds that have been derived from these illicit activities.

The Corporate Sustainable Reporting Directive (CSRD)

The CSRD entered into force in January 2023 as a new directive strengthening the rules around the social and environmental information that companies are obliged to report. It replaces the Non-Financial Reporting Directive (NFRD) with the aim of standardising sustainability disclosure in the EU for large companies. It applies to EU firms with over 250 employees and a turnover exceeding €40 million, including all capital market-oriented companies such as insurance companies and banks. Additionally, non-EU companies with a net turnover of €50 million within the EU and listed SMEs are subject to this directive. These companies must report on sustainability using the European Sustainability Reporting Standards and make this information electronically accessible as a dedicated section in their management reports.

The CSRD requires companies to provide a double materiality approach. This means that they should simultaneously report on sustainability matters that are financially material, such as information about their supply chains, as well as the consequences they have on deforestation, ecosystems, climate change, local populations and governance. The latter is intended to promote awareness whilst encouraging firms to mitigate adverse impact and identify opportunities to make positive impact. The intention is that reporting on both financial and impact materiality will allow financial institutions to mitigate risks associated with deforestation and conversion as a result of identifying such risks in their portfolios.

Transition risk

Financial institutions that delay tackling their direct and indirect exposure to land conversion may face transition risk if they are unprepared for changes in regulation, like those proposed in the EUDR. Policy changes that accompany the transition to a greener economy may result in shifts in asset values or increased operational costs and firms that are not prepared for changes may suffer significant losses. Some firms are choosing to reduce investments into certain sectors now to help them manage these risks.



Risk Area

The EU Taxonomy Regulation

The EU Taxonomy Regulation establishes a classification framework that defines when an economic activity can be considered sustainable in the EU. The regulation came into effect in 2020 and applies to financial institutions, requiring them to disclose the proportion of their financial activities that are taxonomy-eligible and aligned. The framework serves as an important market transparency tool and helps direct investments to the economic activities most in line with environmental and sustainability objectives.

GREENWASHING

Risk Area



The European Bank Authority ([EBA](#)) has noted a “clear increase” in potential cases of [greenwashing](#) (misleading and exaggerated claims about the sustainability of products or services) across the financial sector over the past few years, particularly in relation to banking and investment services. Greenwashing has serious reputational, financial and litigation risks. The EBA noted a particular problem with banks and investors promoting support for initiatives like clean energy without mentioning their financing of projects linked to deforestation, fossil fuels and human rights abuses. Some EU-headquartered banks have also come under criticism for investing in companies that are allegedly linked to deforestation in the Amazon, despite purporting to do the opposite - particularly through the [green bond \(or Agribusiness Receivable Certificates\) market](#) in Brazil.

The rapid growth of this market – perhaps perversely - presents a land conversion risk to financial institutions. These bonds were created to support small-scale, sustainable farmers’ practices in the country but in practice – the market having swollen by around [€8 billion](#) – these bonds often finance large companies and their suppliers which have been linked to deforestation activities and allegations of slave labour. To reduce the risk of greenwashing, the European Council adopted a regulation creating a European green bond [standard](#) in October 2023, laying down uniform requirements (including voluntary disclosure requirements) for issuers of such bonds. This will come into force in October 2024 and covers all entities already covered by the EU Taxonomy Regulation.



Sustainable Finance Disclosure Regulation (SFDR)

The [SFDR](#), adopted into law in March 2021, sets stringent minimum-disclosure standards to prevent greenwashing in investment products that claim ESG or ESG-related objectives. Applicable to all EU financial institutions and financial advisors, the SFDR aims to bring higher transparency to sustainability-related disclosures in the financial services sector at both the entity and financial product levels. This dual-level, double materiality reporting is intended to be integrated into their investment decision-making processes.

While the [SFDR](#) does not primarily focus on deforestation, the regulation's mandatory and voluntary disclosures will expose financial institutions which invest in companies with detrimental land-use practices that negatively affect biodiversity-sensitive areas, or those that lack a policy regarding deforestation. However, land degradation falls under the banner of voluntary rather than mandatory disclosures under the SFDR.



THE UNITED KINGDOM

The UK Environment Act 2021 and Environmental Improvement Plan 2023

The [Environment Act 2021](#) introduced new provisions making it illegal for larger businesses operating in the UK to use forest-risk commodities that have been grown on land that is illegally occupied or used. Building on this Act, the UK government published its 2023 [Environmental Improvement Plan](#) in January, which outlines specific actions around environmental crimes. The plan includes the goal of shifting to more sustainable supply chains to combat deforestation and an outline of the government's intent to operationalise the Environment Act 2021 provisions through secondary legislation. Businesses in scope will be required to undertake a due diligence exercise on their supply chains and to publicly report on this exercise every year - or risk fines and other civil sanctions. The government has committed to implementing these regulations at the earliest opportunity.

In January 2024, the UK Parliament's All Party Parliamentary Environment Audit Committee published a [report](#) on the UK's contribution to tackling global deforestation, with the explicit recommendation that "the Government bring forward legislation to bring businesses in the UK financial sector within the scope of the Schedule 17 regime" of the Environment Act 2021. This makes provision for the government to establish a due diligence system for forest-risk commodities and sets out a framework for the regulation of the use of these in commercial activity. The report notes that there is a need for secondary legislation to determine the commodities and businesses in scope, reporting requirements, the enforcement framework, and timelines for implementation – advocating for the inclusion of the financial sector.

Financial Services and Markets Bill

Amendment 91 to clause 65 of the [Financial Services and Markets Bill](#) was passed in the House of Lords in 2023 and, if passed by Members of Parliament, will require financial institutions to implement a due diligence regime to ensure that their activities - both direct and indirect - do not support deforestation or land conversion and are compliant with relevant local laws. This will include commercial activities in relation to forest-risk commodities and their derived products (like paper and pulp).

HORIZON SCAN: THE UK GREEN TAXONOMY

The UK Green Taxonomy has been under development since 2021 and, if implemented, would aid the UK in tackling greenwashing, reducing carbon emissions, and achieving its net zero goals. The UK's Green Technical Advisory Group (GTAG), an expert panel established to give independent advice to the UK government on the formation of a green taxonomy, is calling for the framework's urgent implementation. The aim of the UK Green Taxonomy is to provide a common framework for determining which activities can be defined as 'environmentally sustainable'. GTAG recommendations include the development of clear definitions and criteria to determine what economic activities qualify as environmentally sustainable. The guidance highlights specific KPIs in monitoring and reporting on taxonomy-aligned activities, which are structured to address various environmental aspects, such as carbon emissions, water usage, and waste generation. One of the primary goals of the UK Green Taxonomy is to improve market integrity and combat the rising cases of greenwashing by corporations and financial institutions, providing a transparent system for evaluating the environmental sustainability of various activities. While the final framework is yet to be published, it is anticipated that it will closely align and build on the EU Taxonomy framework that came into effect in 2020.

HORIZON SCAN: THE GLOBAL REPORTING INITIATIVE (GRI) TASKFORCE

The GRI Taskforce, an independent UK government-established organisation, has recommended that:

- A "legally binding target" be established to end deforestation in UK agricultural and forestry commodity supply chains as soon as "practicable" and no later than 2030, beginning with "commodities and derived products that contribute most significantly to deforestation before extending to other supply chains."
- A mandatory due diligence obligation be introduced on business and finance in relation to land conversion.



US Treasury Department

The US Treasury Department has been actively involved in combating environmental crime through various initiatives.

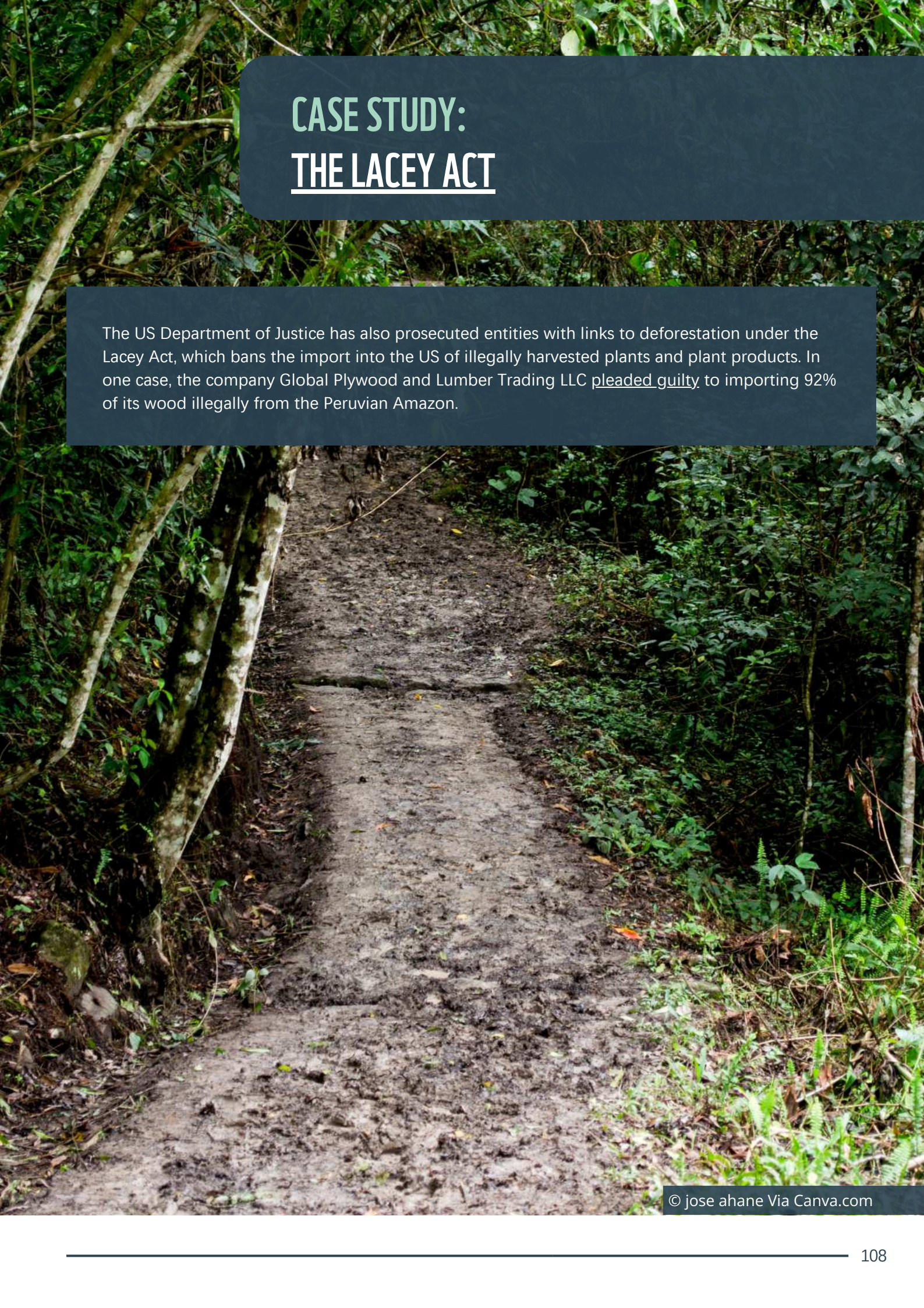
The Financial Crimes Enforcement Network (FinCEN)

FinCEN, a regulatory body within the US Department of the Treasury, has expressed concern over the financing of environmental crimes, publishing a notice for financial institutions highlighting the risk of illicit financial activity related to illegal logging and associated trade. Moreover, in 2023 the US published various reports on steps that should be taken towards reducing international deforestation.

Office of Foreign Asset Control

The US Treasury Department has been actively involved in combating environmental crime through various initiatives, as well as through sanctions against individuals and entities linked to resource extraction. For example, in May 2023, the US Department of the Treasury's Office of Foreign Asset Control (OFAC) sanctioned four charcoal smugglers involved in the illegal export of Somali charcoal, which it stated had played a role in financing the terrorist group al-Shabaab, as well as driving deforestation and environmental damage. It also sanctioned a Cambodian national, Try Pheap, for building a large-scale illegal logging consortium that relied on the collusion of Cambodian officials, including military and national park officials, and the purchasing of protection from the government. Pheap trafficked his timber and sold to buyers in Vietnam, China, Europe, and Russia through the Cambodian military.





CASE STUDY: THE LACEY ACT

The US Department of Justice has also prosecuted entities with links to deforestation under the Lacey Act, which bans the import into the US of illegally harvested plants and plant products. In one case, the company Global Plywood and Lumber Trading LLC pleaded guilty to importing 92% of its wood illegally from the Peruvian Amazon.

HORIZON SCAN:

EXECUTIVE ORDER ON STRENGTHENING THE NATION'S FORESTS, COMMUNITIES, AND LOCAL ECONOMIES

In October 2022, the US Department of State published a [request](#) for public feedback on options for proposed legislation, under a potential Executive Order on Strengthening the Nation's Forests, Communities, and Local Economies, which would cover a "whole-of-government approach to combating international deforestation". Proposed options include:

- limiting or removing specific commodities grown on lands deforested either illegally, or legally and illegally after 31 December 2020 from agricultural supply chains; and
- public-private partnerships with major agricultural commodity buyers, traders, financial institutions, and other actors to voluntarily reduce or eliminate the purchase of such commodities and instead incentivise the sourcing of sustainably produced agricultural commodities.

As part of this, the [Financial Accountability and Corporate Transparency \(FACT\) Coalition](#) (a non-partisan alliance of over 100 state, national and international organisations) submitted [recommendations](#) to "more holistically address the role that illicit finance plays in enabling and rewarding illegal logging and deforestation abroad" by "including US financiers connected to illegal deforestation in the scope of those parties regulated to limit or remove specific commodities grown on illegally deforested lands from agricultural supply chains"

HORIZON SCAN: THE FOREST ACT

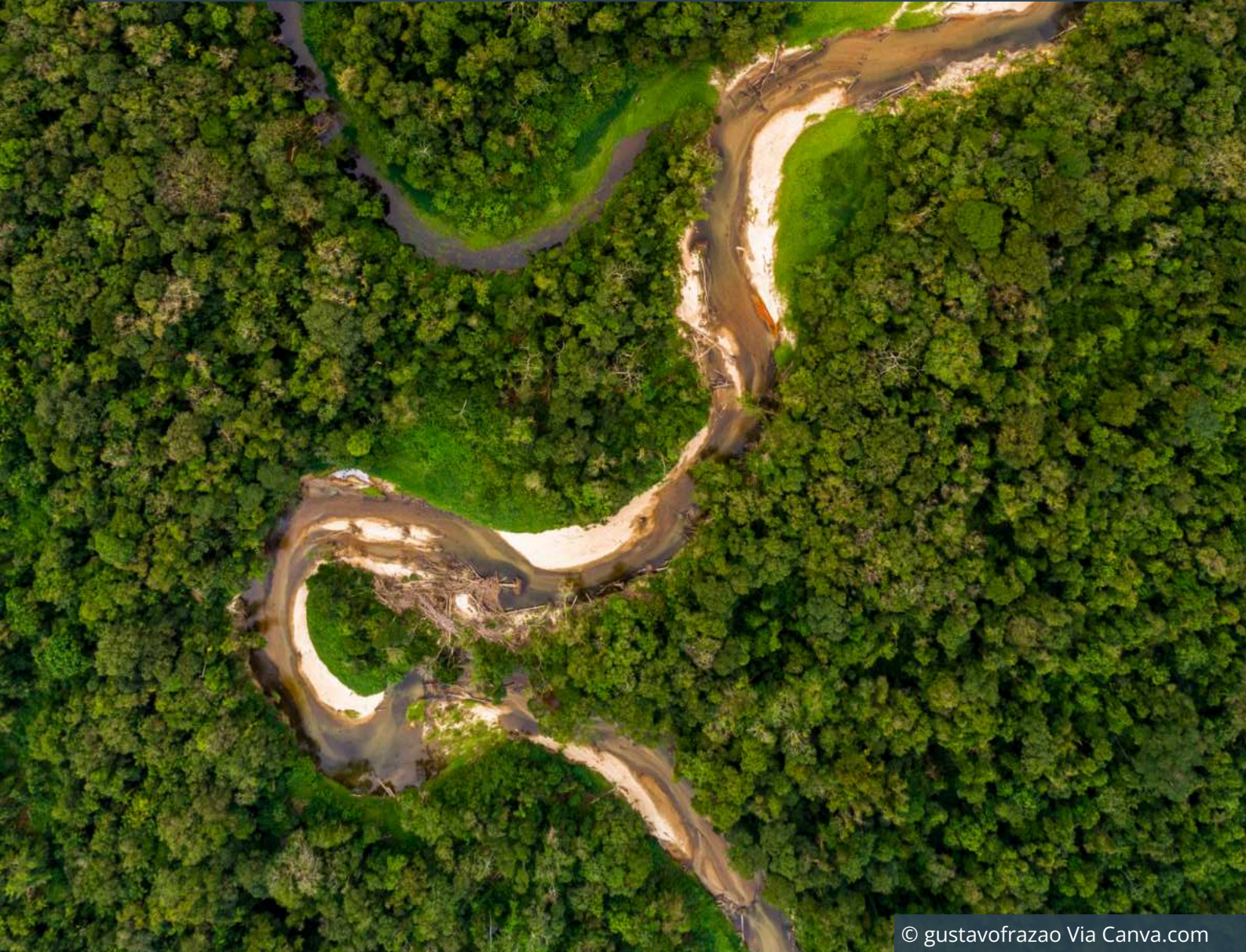
A legislative proposal - the Fostering Overseas Rule of Law and Environmentally Sound Trade (FOREST) Act (re-introduced for review in the US Congress in December 2023) - seeks to ban the import into the US of products linked to illegal deforestation. The Act would amend the US Tariff Act, adding a new section prohibiting the import of products made from commodities produced on land that undergoes illegal deforestation on or after the date of the FOREST Act's enactment. These commodities would initially cover palm oil, soy, cattle, cocoa, rubber, and wood pulp – but this list would be updated annually. Importers would need to prove their products are deforestation-free, through greater transparency and higher quality reporting in their supply chains.

The bill also proposes the addition of illegal deforestation as a predicate offence to the US money laundering criminal statute. Viewing illegal deforestation through a predicate crime lens, then, the US would be able to pursue legal action against those who use illegal deforestation to finance terrorism or other criminal organisations.

In December 2023, the US House of Representatives and Senate re-introduced the "Fostering Overseas Rule of Law and Environmentally Sound Trade Act of 6 2023" (FOREST Act of 2023) into Congress. The bill seeks to ban imports linked to illegal deforestation, defined as "deforestation conducted in violation of the law (or any action that has the force and effect of the law) of the country in which the deforestation is occurring, including anti-corruption laws, laws relating to land tenure rights laws, and laws relating to free, prior, and informed consent of indigenous peoples and local communities." The bill proposes stringent measures for importers dealing with products linked to illegal deforestation, covering palm oil, soy, cocoa, cattle, and rubber. Importers of these products (and specified derivatives) would have to demonstrate that they have taken reasonable steps to assess and mitigate the risks that any covered commodity used to manufacture a covered product is produced on land subject to illegal deforestation on or after the date of enactment of the bill. At the time of writing, the bill leaves the details of the due diligence process unclear and instructs the Department of Homeland Security to develop guidelines on what constitutes "reasonable care."

Under the bill, importers would be required to certify mitigation against deforestation risks and face audits by the US Customs and Border Protection (CBP). A trusted trader programme would offer streamlined processes for importers that have a record of compliance and a “transparent and credible due diligence system”. The bill would provide technical assistance to aid countries in eliminating illegal deforestation, funded by fines from penalised importers.

Additionally, the bill would list illegal deforestation as an unlawful activity in section 1956(c)(7)(B) of title 18, thereby making it a specified unlawful activity under US money laundering law. In accordance with this provision of US law, individuals, and entities (including foreign nationals engaging in US transactions) can be fined and imprisoned if they engage in financial transactions involving property derived from an unlawful activity knowingly. This provision could prove to be a significant law enforcement tool in campaigns against illegal deforestation, and financial institutions should consider this provision as a new compliance consideration in their risk mitigation processes. Financial institutions are not in scope of the proposed FOREST Act at this stage but there are calls to include them - and given the way legislation is moving to cover the financial sector in the EU and UK, it is likely that they will stay on the radar.



Extraterritoriality

The extraterritoriality of much US financial crime related legislation means that even if institutions or activities are not operating or taking place on US soil, they can still face prosecution due to an expanded scope of corporate criminal liability. US legislation, for example, can apply not only to US persons and entities but also to goods and activities occurring through the financial system in the US. The scope of this is extremely broad, covering any transactions with or in USD that take place globally, not just in the US. The risk to firms as regards extraterritorial action on the part of the US has been repeatedly demonstrated; for example, via the sanctions imposed on European companies for breaching the Foreign Corrupt Practices Act (FCPA). This should be a key risk for firms that are exposed to land conversion through their third-party relationships, since these activities often go hand in hand with financial crimes like corruption and money laundering. US laws of particular relevance include:



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FCPA - Anti-bribery and accounting provisions in the FCPA can apply to forest crime, and through these the US Department of Justice can bring criminal charges - and the US Securities and Exchange Commission (SEC) civil or administrative actions. Specifically, if an issuer corporation has false accounting statements and records, fails to implement internal controls, or acts to bypass these requirements to hide forest crimes, the issuer (and related parties) may be held liable.



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Anti-Money Laundering Act - Under this Act, if a US financial transaction knowingly involves the proceeds of a crime from “specified unlawful activities” - even if there was no direct involvement in the underlying offence - it falls under the scope of money laundering. This includes profits earned by businesses through contracts or regulatory license approvals obtained through bribery (for instance, timber, soybean, cocoa, and palm oil entities paying off officials in exchange for concessions or relief from regulatory enforcement). For example, in the case of a palm oil magnate developing a land bank through corrupt means, planting agricultural crops and subsequently using the US financial system to sell the company, all parties to this acquisition who know of these events may be liable.



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Global Magnitsky Act - Under this Act, financial transactions with listed foreign officials found responsible for corruption or human rights abuses are prohibited, as are transactions with individuals and entities that support and finance such foreign officials. This is important to note in the context of land conversion given its frequent convergence with corruption and human rights abuses – including land grabbing, human trafficking, and violence against Indigenous communities. For instance, in 2018, sanctions under the Magnitsky Act were levied against Dan Gertler and the entities allegedly associated with him for corrupt mining practices – which are closely linked to land clearing – in West Africa. The US is looking to employ similar penalties through the Act to sanction criminals who engage in corruption and human rights abuses to facilitate deforestation in the Amazon.

CASE STUDY: DAN GERTLER

Dan Gertler is an Israeli billionaire who made vast profits from acquiring mining and oil licenses at knock-down prices from the Democratic Republic of Congo government or state-owned multinational companies and acting as an intermediary for mining asset sales in the country, through his connections with the former Congolese President Joseph Kabila. Under this relationship, several multinational companies were required to go through Gertler to do business with the government. Mining in the Democratic Republic of Congo for minerals including copper, gold, diamonds, cobalt, uranium, and coltan, as well as oil exploration, causes deforestation and land conversion on a wide scale across a range of ecosystems including peatlands, dry forests, and savannahs.

Gertler was sanctioned in 2017 by the US Treasury Department for corruption, alongside one associate, Joseph Kabila Kabange, and 19 companies tied to him. In 2018, a further 14 different entities owned or controlled by Gertler were sanctioned and, in 2021, so were a further associate, Alain Mukonda, and entities linked to him, for providing support to Gertler while he was sanctioned. The Treasury determined that the Democratic Republic of Congo lost circa USD 1.36 billion in revenues from the under-pricing of mining assets that were sold to offshore companies linked to Gertler.



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Fig 20: A Themis Search risk map of sanctioned entities and associates linked to Dan Gertler

Dan Gertler

Gender: Male

Date of birth: [Redacted]

Nationality: Israel

Addresses: Business: Tel Aviv, Israel... [More]

Aliases: Daniel Gertler (Name Spelling Variation)... [More]

Adverse Media

Adverse media has been reported against Dan Gertler

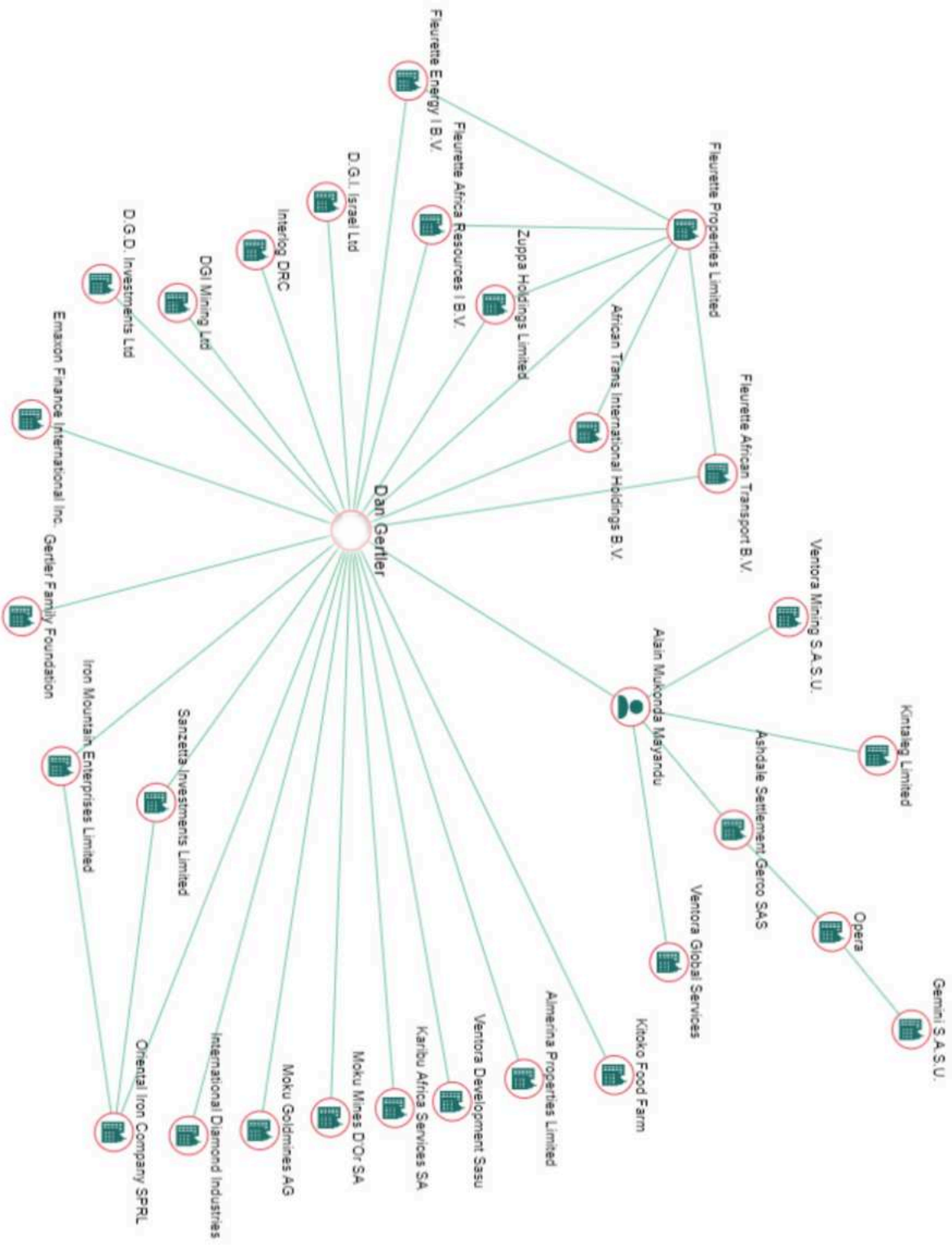
Bribing Another Person

Event: Pre-Trial: Preliminary Investigation

Date: 2022-10-05

Development in the British investigation against Dan Gertler on corruption in the Congo: you will receive information from Switzerland

On 5 October 2022, the Federal Court in Geneva ordered the transfer to the Office for Fraud Investig... [More]



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APPENDIX 2: ADVICE AND GUIDANCE FROM INTERNATIONAL BODIES

The Basel Institute on Governance

The Basel Institute on Governance has published an educational tool that delves into forest crime and the illegal timber trade, placing particular emphasis on financial crimes and supply chain weaknesses that increase companies' legal, financial, and reputational risk. The resource offers case studies and typologies of the illegal trafficking of timber across the supply chain, from source, transit, and destination countries.

CITES

CITES is an international agreement between governments, involving 184 signatories across the globe. Its primary objective is to safeguard endangered species from the negative impacts of being traded internationally. It plays a pivotal role in the regulation of timber; overseeing the international trade of close to 800 tree species, regulating the trade of certain timber and non-timber forest products to ensure legality, sustainability, and traceability. Under CITES, the EU is obliged to protect roughly 30,000 species of listed plants against over-exploitation through international trade by enforcing the use of permits in protected species, and all trade that is in breach of CITES is illegal.

The Financial Action Task Force (FATF)

The FATF recommends that environmental crime – which covers illegal logging and forestry crimes – be considered a predicate crime to money laundering in all countries' national legislation.

Several of the FATF's 40 Recommendations are of particular relevance to deforestation, including:

Recommendation 4 - Competent authorities should freeze or seize and confiscate assets laundered or proceeds from predicate offences.

Recommendation 10 - Financial institutions are required to undertake Customer Due Diligence (CDD) whilst establishing business relationships and when carrying out transactions which are of a suspicious nature.

Recommendations 20 & 23 – If a financial institution has reasonable grounds to suspect that funds may be the proceeds of a criminal activity, it should promptly report its suspicions to the FIU.

Global Witness

Global Witness is an international NGO that works to “break the links between natural resource exploitation, conflict, poverty, corruption, and human rights abuses worldwide”, through investigative research, report and policy brief publications, and advocacy campaigns. The organisation aims to hold companies and governments accountable for the financing of land conversion and is a key proponent of due diligence for risks associated with land conversion. It publishes numerous articles and reports on case studies and key topics related to financial institutions' exposure land conversion. Furthermore, Global Witness reports on the latest news stories and research related to the issue and calls upon governments and institutions for stricter regulation on the world's financiers for their role in the issue.

Nature Crime Alliance (NCA)

Launched in August 2023 by the governments of Norway, the US, and Gabon, the NCA is a global multi-sector network facilitating cooperation between governments and law enforcement bodies, companies and financial institutions, civil society, and donors. The alliance aims to integrate and advance a more substantial flow of information, technology, and funding to amplify global efforts in combating nature crime such as illegal logging, land conversion, illegal fishing, mining, and the illegal wildlife trade. The alliance is significant in that it brings together a strengthened political will, financial commitment, and operational capacity to tackle environmental crimes and their associated criminal activities. One of the NCA's goals is to initiate projects to “identify and disrupt financial flows linked to nature crime.” The FACT Coalition became a member of the NCA in September 2023.

The UN Office of Drugs and Crime (UNODC)

The UNODC has promoted the introduction of financial investigations into predicate crimes linked to land conversion, as well as the training and mentoring of relevant authorities within the financial sector to aid the identification of these crime types. The UNODC works in assisting member states in preventing money laundering, conducting parallel financial investigations, as well as the tracing, seizing, and confiscating of proceeds of crimes in the forest sector. In addition, the UNODC has published a series of educational resources on different financial crimes alongside corresponding FATF guidance.

Industry self-regulation

The Glasgow Financial Alliance for Net Zero (GFANZ)

The GFANZ is a global coalition of over 500 financial institutions, co-led by UN Special Envoy on Climate Action and Finance, Mark Carney. Members – with a combined asset base of circa USD 130 trillion – have committed to making sustained efforts to achieve a net-zero global emission target by 2050. GFANZ recommends that financial institutions “strive to eliminate commodity-driven deforestation from their investment and lending portfolios.”

The Accountability Framework initiative

In 2023, the Accountability Framework initiative (AFi) - a coalition aiming to provide a common baseline and support for companies trying to improve the ethicality of supply chains - introduced new [guidance](#) specifically tailored to financial institutions, placing a strong emphasis on due diligence concerning deforestation, land conversion, and human rights. It recommends that firms:



Establish responsible lending and investment policies, assess risks, engage clients and disclose progress.



Assess environmental and social risk and performance in their portfolios using reporting standards and platforms such as the Forest [500 assessment](#) and the Ceres' [Engage the Chain](#) guidance.

It is also helping to build a consensus around a single definition of forest; currently, there are over 800 definitions of "[forest](#)" in use worldwide, leaving ample room for actors to circumvent rules around land conversion.

Finance Sector Deforestation Action

The [Finance Sector Deforestation Action](#) (FSDA) was launched at COP26 as an initiative between 37 financial institutions with more than USD 8.5 trillion in assets under management and which have made a commitment to work towards eliminating agricultural commodity-driven deforestation risks (from cattle, soy, palm oil, pulp, and paper) in their investment and lending portfolios by 2025.





CASE STUDY: BRAZIL

Building on the 2009 Terms of Adjustment of Conduct, voluntarily signed by several slaughterhouses in Brazil, the Brazilian Federation of Banks agreed in 2023 to require meatpackers and slaughterhouses seeking financing to implement environmental monitoring of suppliers who raise cattle in the Amazon. By December 2025, meat companies that purchase cattle from suppliers in the Brazilian Amazon will be expected to implement a “traceability and monitoring system” that should disclose information on any type of embargo due to illegal deforestation, overlap of land ownership within protected areas, as well as the registration of cattle ranchers and the recording of animal acquisition information.

Get in Touch

If you would like to talk to us about any of the themes or updates covered in this report, please let us know.



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About Themis



Themis helps clients identify and manage their specific financial crime risks, through a combination of innovation, insight and intelligence. Our cutting edge platform helps organisations understand these strategic threats through an ESG and socio-economic lens and protects their customers, staff, suppliers and shareholders from criminal attacks or association. For more information, visit www.wearethemis.com

About WWF



WWF (Worldwide Fund for Nature) is one of the world's largest independent conservation organisations, active in nearly 100 countries.

Our supporters – more than five million of them – are helping us to restore nature and to tackle the main causes of nature's decline, particularly the food system and climate change. We're working to ensure a world with thriving habitats and species, and to change hearts and minds so it becomes unacceptable to overuse our planet's resources.



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